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ABSTRACT

This report on the operations of the Australian Council for Educational Research (ACER) for the 1973-74 period provides descriptions of research activities related to experimental and analytical studies, surveys, curriculum innovations and evaluations, reviews and comparative studies, the (Australian) Schools Commission, measurement studies, and test development. In addition the following operational services and functions of ACER are described: testing services, data processing, advisory services, trading operations, publishing, staff matters, buildings and accommodations, and finance. The relationship of ACER with the International Association for Educational Assessment is described. Lists of Council members, officers, and staff members of ACER are provided, as is a list of State Institutes for Educational Research. (SD)

Australian Council for Educational Research

U.S. DEPARTMENT OF HEALTH,
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forty-fourth annual report

73-74

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forty fourth
ANNUAL REPORT
1973-1974



**Australian Council for Educational Research,
Frederick Street, Hawthorn, Victoria 3122**

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J P Keeves, BSc, DipEd, MEd, PhD, fil dr, MACE, 1972-

Annual Report of the Director

Presented at the Annual Meeting of Council, 7 and 8 November, 1974

INTRODUCTION

In 1969-70 the annual grants to ACER from the several Australian governments were \$80,000. In 1970-71 they were raised to \$100,000, an increase that did not cover the actual increase in costs which occurred during that year because of salary and wage rises. The grant met the costs of six of the research staff and their supporting staff. Early in 1971 a proposal was put to all governments for a phased increase in the grants, over a period of three years, to \$350,000. At 1971 values, it was expected that this would cover the salary and costs of the work of twenty-six research staff and support for them; enabling the ACER to develop a planned program, independent of other sources of funds. The proposed program included surveying aspects of Australian education by empirical, comparative and descriptive studies, developing tests and other instruments for measuring aspects of the educational systems including their processes and outcomes, and making contributions to theory and practice in curriculum.

In 1973-74 the annual grant was \$267,000. Relative to 1970-71 values that means we received what we asked for in 1971 as Phase I of the three year program. The increases since 1971 have enabled us to increase the number of staff whom we see as funded from the grants, from six to thirteen. The increase to \$330,000 in 1974-75, which we expect to be approved by all governments, will enable us to add some two or three additional staff members, but only if it is adjusted to cover what appear to be inevitable increases in salaries and wages.

We have been able, as a result of the increases, to undertake work which would otherwise have depended on special grants, or commissions. The massive Item Bank project, which is a completely non-profit making activity, has been possible only because its activities can be funded from the annual grants. The development of effective screening procedures for those entering school depends upon the availability of a staff member who was appointed because annual grants permitted such an appointment. Additional work to that which would probably have gone on in any event has also been possible. Much of our IEA work is possible for the same reason, in particular the follow-up study and the study of the achievements of students in the final year of secondary schooling. A number of other examples could be cited.

We have been able to say no to requests or suggestions that we might undertake particular studies, because our own program is more stable. We have a greater degree of confidence in the continuity of more of our work, and the senior officers concerned have been able to give more undivided time to long term ACER projects without having to

concern themselves quite so much with how to maintain an experienced and trained staff through contracts and special grants.

The additional funds in 1973-74 met the annual costs of one of the two Associate Directors (and in 1974-75 will meet the costs of both Associate Directors), four research staff engaged in test research and development, and additional library and secretarial staff. In 1974-75, we expect to begin to build up the specific permanent curriculum group envisaged in the 1971 requests, and to have a permanent core of work alongside the somewhat ad hoc pilot work we have been doing over recent years.

EXPERIMENTAL AND ANALYTICAL STUDIES

The Home Environment and School Study

(J P Keeves, C W Slee)

Following the further examination of the data available in this study (which was supported by the Australian Advisory Committee for Research and Development in Education), work has commenced on the preparation of a series of reports. Three reports have been prepared and distributed and several others are in draft form, or are awaiting publication. The preparation and distribution of reports from this study will continue during the coming twelve months.

Amongst the results reported, the following seem to be the principal ones for immediate attention: it was difficult to identify teaching behaviours which made a substantial contribution to the variation in achievement in mathematics and science, although inquiry oriented behaviours were found to contribute to change of attitudes in a favourable direction in these subjects; complex and marked non-linear and interaction effects are not common between home background characteristics and student achievement, although small relationships between achievement measures and variables such as family size may sometimes be detected; attitudes towards school and school learning can be assessed with sufficient reliability and validity to warrant their inclusion as measures of educational outcomes in future research studies, but not as performance measures for individual students.

Validity Studies Associated with the Commonwealth Senior Secondary Scholarship Examination

(J D Thomson, J P Keeves)

During 1973, two studies into the nature of the Commonwealth Senior Secondary Scholarship Examination (CSSSE) tests were planned and

the initial analyses carried out. During the past twelve months further analyses have been undertaken and the drafts of three research reports have been prepared. Further reports are in the course of preparation and will be completed by the end of 1974 when the project will terminate. This project has been supported by the Australian Department of Education.

Details of the studies were given in the 1972-73 report. Amongst the many findings of interest in these studies are the following: performance on the CSSSE tests, particularly the Humanities Test, was strongly related to independent general measures of reading comprehension; marked sex differences were detected between performance in mathematics and science (whether assessed by the CSSSE tests, public examinations or school assessment), and performance in the Humanities, English and Written Expression papers; the factor structure of the tests appeared to be more strongly dependent on particular and unique characteristics of the modules comprising the tests than on any identifiable cognitive skills, apart from those associated with general reading comprehension and intelligence.

Study into the Effects of Coaching on Performance in the Commonwealth Senior Secondary Scholarship Examination

(J Lumbers, J P Keeves, J D Thomson, C W Slee)

The analysis of the data collected in this project was made complex because of the clustering of students within schools which were nested under treatments, and constrained by the non-orthogonality of the design chosen for the study. Nevertheless, a report on the full analysis of the data is awaiting publication. This study has been supported by the Australian Department of Education.

The coaching was given to randomly selected class groups of students in twelve schools. In addition opportunities to obtain practice on the CSSSE mathematics test were given to six further class groups of students, while other classes were selected as control groups.

The coaches were experienced teachers, who gave some ten or more hours to the coaching of the students who were at Form III level in Victorian schools. In all, thirty-six groups were used in the study, each containing approximately fifteen students.

The results suggest that the gains to be made from working through a CSSSE mathematics test for a period of two hours exceeded those made from coaching and practice over ten weekly sessions of approximately one hour's duration. The gains made from such coaching and practice were in general small, being only of the order of one score point, and are clearly of extremely doubtful practical significance. The gains made from practice on a similar test over a period of two hours

were between one and two score points, indicating that preparation for the examination in this way is of some value to candidates.

A Study of Sampling Errors (K Ross)

The aim of this project is to develop empirical estimates of the sampling errors of a range of statistics (means, correlation coefficients, regression weights, etc.) for five sample designs which are commonly employed in educational research. The development of these estimates is being based on a body of data which was gathered from the population of Form 1 students who were attending secondary schools in the Australian Capital Territory during 1969. These population data have been cleaned, scored and stored in readiness for computer access.

Twenty-five independent replications of each of the five sample designs are now being prepared for computer processing. These samples will be applied to a path model which relates antecedent student characteristics to achievement in mathematics. The many estimates of population parameters which are obtained from these analyses will be used to generate the sampling distributions of the relevant variables and statistics.

The manipulation of computer stored data files and the calculations associated with the estimation of sampling errors are being carried out with the assistance of computer programs produced by the Institute for Social Research at the University of Michigan.

SURVEYS

IEA SCIENCE STUDIES

National Analyses and International Comparisons

Comment is made later about the mode of publication for a number of the analyses made and papers prepared on the data from the IEA Science Project (see p. 41 and p. 44 under Publications). Although there is nothing further to report on the initial study of the original fourteen year olds (Population II) and the original pre-university group (Population IV), as indicated later there are follow-up studies and an analysis of the achievements of the science specialists in Population IV still to be completed.

Amongst the findings of the national analyses done of the 1970 study the following seem to us to be the most important:

- At both population levels, the performance of the Australian stu-

dents on the IEA science tests was among the highest of the countries in the project.

- At the Population IV level, Australia, England, Scotland and New Zealand had similar science results. This reflects a common tradition of science teaching. The United States score was lower, probably due to its different pattern of upper secondary science teaching. Hence in developing science curricula for the upper secondary level of Australian schools it is important to examine the models from the above Commonwealth countries as well as those from the United States.
- At the Population II level the state mean scores fell into three groups:
 - (a) higher level—Queensland, South Australia, Western Australia;
 - (b) middle level—New South Wales;
 - (c) lower level—Victoria, Tasmania.
- At the Population IV level the South Australian score is much higher than that of the other states.
- Most of the state differences are explained by the amount of time spent on the study of science in the various states.
- At the Population II level many of the differences between school mean science scores were explained by the school mean home background ratings of the students.

At the Population IV level, the proportion of male students was more important than the home background.
- The mean science performance of boys was superior to that of girls. This gap was greater at the upper secondary level than at the lower secondary level.
- School factors associated with high science scores were:
 - (a) more laboratory assistants in the school;
 - (b) a higher student/teacher ratio;
 - (c) more time spent by students on the study of science in school, and on homework out of school hours;
 - (d) emphasis by science teachers on practical work and student investigations;
 - (e) more time spent by science teachers out of school hours on their preparation of work.
- There was a high degree of mobility of Australian science teachers. Over a two-year period more than half moved from their school to another school, or other employment. This mobility has important implications for school-based curriculum and evaluation programs.
- In general the science teachers in Australia were younger than in the other IEA countries. They also spent relatively less time on preparing lessons and marking tests than the teachers in other countries.
- The overall picture which emerges from the project results indicates that effective learning of science occurs in a stable school environ-

ment where students receive competent systematic instruction in carefully structured science courses. The science teacher has a key role, his own preparation and his guidance of the students' work being important.

- An important by-product of the project has been the experience gained in methodological aspects of large-scale survey research: sampling, instrument construction, data collection and analysis, and interpretation of results.
- It is also most important to record the very high level of co-operation given by the schools and students who participated in the IEA Science Project and the various follow-up projects. The student response rates were indicators of this co-operation: ninety-three per cent for Population IV and ninety-seven per cent for Population II.

Population II Follow-up

(M Rosier)

The data used in the analyses for this project came from various sources: from students as fourteen year olds in the 1970 testing program; from those students who were still at school as sixteen year olds in 1972; from those students who had left school and completed mail questionnaires as sixteen year old leavers in 1972; from school principals and guidance persons in 1972. All the tests and scales have been scored, and the data from all sources have now been checked and built into a single longitudinal file for the main analyses.

The final stage of data preparation has involved the generation of indexes in order to reduce the large amount of data to a more manageable number of variables for the multivariate analyses. Indexes include socio-economic level, school guidance resources, characteristics of the person giving guidance, student activities, school interest and relevance, and career indecision.

The analyses will investigate the relationships between male and female students and leavers with respect to choice of occupation and decisions about future education. The explanatory factors include the influence of family and peers, provision of guidance by schools, and the respondent's own ability, attitudes, experience and self-esteem.

Specialization in Science at Secondary School (Population IV)

(J P Keeves, A Read, C W Slee)

During the past decade the teaching of science at the pre-university level in each of the six Australian states has undergone substantial reform and change. To some extent each state has pursued its own

approach, but there have also been many common elements between the different courses that have been developed.

These courses differ with respect to whether they are indigenous or imported, whether they are used on an Australia-wide basis or only in one state and whether the separate scientific disciplines are studied or a multistrand course has been developed. For example, in 1970, Biology courses at the matriculation level in several states used the textbook *Biological Science: The Web of Life*, prepared with support from the Australian Academy of Science. This text is partly an imported one, being based on the work of the Biological Sciences Curriculum Study in the United States. In addition to being used largely on an Australia-wide basis, it represents the study of biology as a separate discipline. However, in New South Wales in 1970 biology was one element of a multistrand or partly integrated science course which had been developed in that state and was used only in that state. It would be of considerable value to examine the outcomes of these different patterns of science education operating across Australia: not in order to pass judgment on any one program, but to provide a factual basis for the debate that is currently taking place, and is likely to increase over the next few years, concerning the courses to be developed in the future for the teaching of science at the middle secondary and pre-university levels.

An opportunity to investigate in detail the achievement of Australian students who study science at the pre-university level, has been provided by the IEA Science Project. In the course of the project, random samples of all pre-university students from the government and non-government schools in each of the six states were tested in 1970 for achievement in science. Within this group which contained both scientists and non-scientists, those students taking science subjects were tested for achievement in biology, physics or chemistry as appropriate. These science tests included a set of items specifically related to practical work. In addition, all students answered a general information questionnaire, a science attitude questionnaire and the Test on Understanding the Nature of Science.

The tests for students taking science subjects were administered by only a few national centres, including the four Commonwealth countries, Australia, England, New Zealand and Scotland, where the tests were considered to be particularly appropriate. Because of unforeseen delays and the consequent shortage of funds, it was not possible for the IEA data processing units to carry out any analyses of these data for the science specialist students. From the beginning of 1974 this study received a grant from the Australian Advisory Committee for Research and Development in Education.

An examination of matriculation science courses is being carried out for the years 1967, 1970 and 1973, in order to show changes in content and emphasis that have taken place during recent years. In this way a

detailed statement giving the 'prescribed' science curricula in each state for the year 1970 is being prepared for subsequent use in the analysis of the data.

The main analyses of the data are being undertaken in Stockholm. Detailed specifications for these analyses have been prepared, but we still await the results of these analyses. Progress on this study has not been as rapid as was originally hoped and the project is now several months behind its planned schedule. However, a paper has been published in connection with this project on 'The Effects of the Conditions of Learning in the Schools on Educational Achievement'.

Population IV Follow-up

(J P Keeves, C W Snee, A Read)

This project examines data collected during October to December 1972 from the sample of students tested at the terminal secondary school level in 1970, concerning their employment and further education in the intervening years. The project aims to relate occupational and educational choices to home background and school characteristics, and to prior performance at school. During the year the data have been coded and prepared for processing and preliminary analyses have been carried out. Less progress has been made on this study than was initially anticipated.

School Leavers 1971-72

(W C Radford, R E Wilkes)

The completed report on the survey of students who left Australian schools for work or further education between 1 April 1971 and 31 March 1972 will be printed for general distribution as no. 96 in the Educational Research Series.

Slightly less than 110,000 of the estimated 215,000 leavers during that twelve month period are included in the survey. Few of the analyses made could use data from all of them, since some schools for one reason or another failed to provide complete information on one or more of their leavers. Destinations, for example, were not recorded for some 21,000 of those on whom other information such as age and grade at leaving were reported.

The information obtained cannot be generalized to all leavers: the only segment in the data that can be regarded as representative is that for South Australian government schools, since we were provided by the education department of that state with copies of the returns on school leavers which it obtains from its own schools. Nonetheless, the data on some 110,000 leavers is of some importance. There are

considerable differences between girls and boys in a number of aspects: age at leaving, grade at leaving, and occupations entered, for example. There are also differences between leavers from metropolitan and non-metropolitan areas, in the same aspects. There are dangers in drawing comparisons between the information obtained in the 1959-60 survey and in that of 1971-72, because of the different rate of response: eighty per cent in the former and fifty per cent in the latter, in broad terms. However, the analyses of the later data agree with the evidence available from other sources: that there has for example been a considerable increase since 1959-60 in the percentages of children staying on to the last years of secondary schooling; that there has been some improvement in the percentage of children taking up tertiary education from homes where the father has an unskilled or slightly skilled job; that attendance at teachers colleges has become predominantly a destination for girl leavers, amongst whom there is a high percentage whose fathers work in unskilled and semiskilled jobs.

Educational Counselling in Australia

(G D Bradshaw)

The University of Melbourne was able to free Mr Bradshaw at the end of 1973 to visit all states to find out more about the operation and needs of their guidance and counselling services. He had, however, some inescapable commitments to the University which made it difficult for him to give the time to the survey which he had hoped. We are most grateful to the University of Melbourne for their generosity in freeing him for the survey, and to him for undertaking it. We distributed his draft report for comment in July last to a number of interested people who had helped in its compilation, and expect to have the report in final form, with a program of action resulting from it, by the end of the year.

Mr Bradshaw rightly points out that to satisfy the expressed needs is far beyond the resources of ACER, and that co-operative effort between ACER and other interested bodies might well prove to be the best and most expeditious way to meet many of the needs. As a direct result of his suggestions we have already made arrangements to publish several of the tests and their accompanying manuals prepared by the Division of Vocational Guidance in the Department of Labour and Industry in New South Wales. These tests of Spatial Perception and Technical Information should be valuable tools for other guidance workers outside that state. We have also begun negotiations about secondments which may help us with verbal, non-verbal, and adult level tests of general ability, as well as with other instruments.

The Educational Achievement of Migrant Children

(M de Lemos)

This study was designed to obtain information on the educational achievement of English speaking and non-English migrant children as compared with that of Australian children.

Random samples of Australian English speaking migrant children, and non-English speaking migrant children attending Melbourne primary schools were tested on a series of school achievement, language development and general ability measures. In addition, information was collected on the home background of the children tested so that a study might also be made of the factors related to school achievement.

The testing of the children and the collection of the data on home background took place in 1971-72. Analyses of the results have been carried out and the final report on the study is now being prepared. This is expected to be completed by the end of the year. An interim report on the study dealing with the achievement scores, but not relating them to aspects of the home background discovered through interview, was submitted to the Department of Labour and Immigration in July.

The study confirms that there are marked and consistent differences in performance between English speaking children (both Australian and migrant) and non-English speaking children at the three grade levels studied. These differences are in most cases significant, and are more marked on the language tests than on the non-verbal and arithmetic tests. There is some tendency for differences on the non-verbal tests to decrease as the children progress from grade 2 to grade 6, while difference on the language tests are at about the same level of significance at the three grade levels.

Period of residence was found to be a significant factor affecting school achievement. Children from a non-English speaking background whose parents had lived in Australia for over ten years performed at a significantly higher level on most of the tests than children from non-English speaking backgrounds whose parents had lived in Australia for up to ten years. These differences were more marked at the grade 4 and grade 6 levels than at the grade 2 level.

When the performance of children from non-English speaking backgrounds whose parents had lived in Australia for over ten years was compared with that of Australian children it was found that there was no significant difference at any grade level on the non-verbal general ability test, but there were significant differences on the language tests. Differences between these two groups were greater at the grade 2 level than at the grade 6 level.

Some differences were also noted according to the national origin

of the parents. Children whose parents came from northern Europe (mainly Holland and Germany) tended to perform at a higher level than children whose parents came from other European countries (mainly Italy, Greece, eastern Europe and Malta), and at about the same level or higher than Australian and English speaking migrant children.

Thus while differences between English speaking and non-English speaking children were found, these differences tended to decrease as the children progressed from grade 2 to grade 6, and with increasing period of residence in Australia.

Aboriginal Education

(M de Lemos, P Di Leo)

This study is designed to obtain information on the school achievement of Aboriginal children at both the primary and secondary level.

At the primary school level, information was collected in Victoria on performance and attendance for the total primary school population of Aboriginal children, by means of questionnaires sent to teachers. In addition samples of children drawn from grade 2, grade 4 and grade 6 were tested on a series of achievement and ability tests.

At the secondary school level, information on performance and attendance was also collected by means of teacher questionnaires for the total secondary school population of Aboriginal children. In addition, a more detailed study was carried out on the total Aboriginal fourteen year old population.

The aim of this was to study the school leaving patterns and occupational choices of Aboriginal students when they reached the age of fifteen years; to relate this to their school achievement and attitude to school; and also to compare the achievement, attitudes and school leaving patterns of Aboriginal students with those of non-Aboriginal students drawn from the same schools as the Aboriginal students and matched by age, sex, and ability.

The collection of data and testing program for the primary school population took place in 1971-72, while the collection of data and testing program for the secondary school population took place in 1972-73. Analyses of all the data collected for this project are currently being undertaken. It is expected that the final report on this project will be completed in 1975.

The Language and Conceptual Abilities of Pre-school Children: Follow-up Study and Survey of School Readiness

(M de Lemos, P Larsen)

This is an on-going longitudinal study investigating the relationship be-

tween language and conceptual abilities at the pre-school level, readiness for schooling, and school achievement at the end of the first and subsequent years of schooling.

It started in 1972 with the testing of a sample of seventy-six children attending pre-schools and day nurseries in the Camberwell and Fitzroy/Collingwood areas on a series of language, conceptual, and general ability tests. These children were followed up in 1973, on entry to school and at the end of their first year of schooling, with a battery of school readiness and school achievement tests. In addition, the battery of Piagetian tests administered at the pre-school level was readministered in 1973 and 1974, in their first and second years of schooling. These children will be tested again at the end of 1974 on a series of school achievement tests and the results will be analysed to determine the relationships between performance on the language and conceptual tests, school readiness, and later school achievement.

In addition to this sample, larger samples of children entering state primary schools in the Camberwell and Fitzroy/Collingwood areas were tested in 1973, on entry to school and at the end of their first year of schooling, on the same battery of school readiness and school achievement tests as that administered to the pre-school sample. These children will be tested again at the end of 1974, with school achievement tests. This data will be analysed to determine the relationship between performance on the school readiness and school achievement tests, and will supplement the data from the pre-school follow up study. It will also permit comparisons to be made between the school achievement of English speaking and non-English speaking children attending schools in high and low socio-economic areas, and enable some study to be made of other factors that might be related to school readiness and achievement, such as age of entry to school and attendance or non-attendance at a pre-school centre prior to entry to school.

These samples of children will be followed up through the primary school, and no final date has been set for the completion of the study. However, progress reports on the results obtained to date will be prepared in 1975.

Language of Primary School Children

(W T Renehan)

A sample of children in grades 2, 4 and 6 from fifteen Victorian government primary schools were interviewed, took part in small group discussions and provided short pieces of continuous writing (stories, descriptions, etc.). Interviews and discussions were tape recorded and transcribed. The corpus of oral and written language thus produced is

being analyzed in terms of the functions for which these children use language, and the means they adopt.

Analysis of the grade 2 oral language corpus suggests that all children at this grade level use language with considerable sophistication, for example to turn a discussion to their own purposes; and that, while all the children in the sample were able to use the forms of language appropriate to talking about hypothetical situations or to form hypotheses, their willingness to do so, within the experimental interview in which they were placed, varied considerably from one child to another.

Preliminary analysis also suggests that 'dummy runs' (writing which serves no other purpose than that of exercise) were more frequent in the writing of the older children than in that of the younger ones.

Victorian In-service Teacher Education—Evaluation

(P Thomson, R Wines, M Batten, B Hay)

Late in 1973 and early in 1974, approaches were made to ACER in connection with a joint project with Monash University, to evaluate some aspects of the in-service program for teachers being set up in Victoria with the help of funds from the Schools Commission. A two-year project was finally approved. The Steering Committee consists of two ACER staff members (Mr Thomson and Ms Wines) and two from Monash. Mrs Batten and Mrs Hay are the research staff for the project.

The literature on in-service education in Australia and overseas has been surveyed and a review will be presented in October.

A survey questionnaire was sent to a sample of 1,000 Victorian teachers in August. Apart from gathering a variety of factual information, the questionnaire seeks to ascertain teacher preferences and attitudes to in-service education. By the end of August over fifty per cent of the questionnaires had been returned, and work was proceeding on the coding information for data processing.

Reading and Listening Comprehension

(M L Clark, B Johnson, S G Meredith)

Reading

Analysis of the data for multiple-choice questions on a series of twelve passages prepared for use at grade 6 level has failed to differentiate unequivocally the eleven reading comprehension skills postulated. Separate 'inferential' and 'literal meaning' factors are found in the results on the tests used. The greater part of variance on the various item types, however, must be attributed to a general comprehension

factor. The inter-relationship of different kinds of items all assumed to test comprehension, has again proved to be complex. Dr Clark has concluded that if a hierarchy of comprehension skills is to be differentiated a reconceptualization of the problems is required. Nevertheless, the mapping of ideas in the passages used, and the kinds of questions employed, seem likely to be of use in helping teachers to approach the assessment of comprehension more critically.

Further analysis of the relationship between multiple-choice questions, equivalent completion-type questions, and various 'cloze' test scores on matched passages is being undertaken.

As part of the redevelopment of Test R for the NSW Primary Evaluation Program, further variants in item distractor patterns are being explored. These include a reduction in the number of distractors and the use of standard response questions.

Listening

In 1973, approximately 400 children at grades 4 and 6 level in Victoria were tested on a series of listening comprehension tasks using both short and extended passages. The 'cloze' technique was employed. Reliability data was encouraging but the results showed that the 'random deletion' approach used was too exacting for primary school children. Standard response questions were used for a number of passages. Generally they had acceptable levels of reliability. As in previous research, responses to questions on extended passages (in this case from selected ABC School Broadcasts) produced low scores, and the level of reliability was disappointing.

Dr Clark is now analyzing the relationship found in Victorian children between the various listening test scores, CPQ data and ratings on student characteristics such as attentiveness, persistence, self-confidence and social acceptance. He has also tried out some of the material and procedures on a sample of Standard 3 children in New Zealand. He is looking at the relationship of short term memory to performance on various listening tasks, and studying with individual children categorized as 'good' or 'poor' listeners, the recall and understanding of 'deep structure' in a series of passages.

CURRICULUM INNOVATIONS AND EVALUATIONS

Junior Secondary Science Project

(J Tyler, R Dixon, L G Dale)

The revision of the Junior Secondary Science Project materials was completed during the year. After Mrs Tyler left in March last to return to England, Miss Dixon (who had participated earlier in the editorial work while still a member of ASEP staff) joined us until July

to complete the editorial work on a number of the units for which all the necessary scientific revision had been done but which were still in the publishing 'pipe-line'. Cheshire Pty Ltd, as publishers, expect to have all the units available to schools before the end of 1974. At the end of August eight of the seventeen units were on sale, and four others are expected in each of the next two months. The materials have been attractively presented in booklet form rather than by cards-in-boxes, and each unit has 'remedial aids' in printed form accompanying the end-of-unit test. Interest has been shown in the materials in U.S.A. as well as in U.K. Mr Dale, who was responsible for the first edition, has been a consultant throughout the production of the revised edition, and has been a very great help at all stages. His availability over the period of production of the last units, when Mrs Tyler and Miss Dixon were no longer available, was particularly valuable. It is a matter of some interest that of the seventeen units, nine or ten are seen as being alternatives or complementary to the ASEP series, and seven or eight as being additional units for which there is nothing comparable in the ASEP series.

Graph Skills

The metrication of the Graph Skills Kit was completed, and a revised form of the Teachers Handbook was prepared.

Sufficient uncommitted capital funds have not been available to begin the publication of the kit.

Home Start

(R Combes)

The work being done by Miss Combes, on which I reported last year, led to her receiving a grant from the Child Care Research Committee. This gave her more resources than ACER could offer her, so that she might use more media than the printed word and have some opportunity to try them out with appropriate groups. The ACER was asked to administer the project, with Miss Combes as Principal Investigator, and has therefore continued its association with her project during 1974. The enlarged project makes use of film, slides, tapes and printed materials, and assumes that discussion in group sessions, with a well-informed leader, will be an effective way to help parents and other adults to provide a suitable environment in which children may be cared for and develop as they should.

The materials being prepared by Miss Combes (with assistance from script writers specially employed for the task, from Monash

University for the film, and from the (Melbourne) Institute of Early Childhood Development) are based mainly on the first three of a proposed series of ten 'pamphlets for parents', each covering some six months in the life of a pre-school child. The material being prepared is not designed to be used as a package, but so that any leader may choose from it what is most appropriate to her own expertise, or to the wishes of the group. Its multi-media nature arises directly from Miss Combes' growing conviction during 1973 that the printed word was not often the best way to interest people, to demonstrate ideas, or to suggest ways to change practice.

Miss Combes is working at the Institute rather than at ACER, in order to make maximum use of the Institute's facilities and to make easier the integration of her project work (two-fifths of her time) and her lecturing and other responsibilities at the Institute. She has been able to call on expert help from many sources in the preparation of scripts and 'products'.

Although I see this project as a very important one, it would be wrong to expect too much from it. It is a pilot study. Its greatest value will come from the appraisal of the responses made by the groups of parents (principally mothers) who will be the first to review the materials as voluntary participants in a parental educational program. I forecast that we will find that the materials initiate ideas, and lead parents and others to question some, if not many, of the assumptions many of us are making at present about the nature and the outcomes of more community 'intervention' in bringing up children.

By the end of 1974, the project expects to have achieved the following:

- preparation of the complete set of planned materials;
- testing the material with groups of about ten parents whose first baby is one month, six months, or twelve months old;
- assessing the responses of the parents;
- adapting or otherwise preparing the material for more widespread use.

It is hoped to record commentaries on at least the slides in one or two of the main migrant languages.

Swinburne Community School—a Case Study

(P Thomson)

Some of the work done in connection with the evaluation of Swinburne Community School was reported in the *Quarterly Review of Australian Education* vol. 6 no. 3, entitled 'Alternative Education'. The final collection of data has been completed, and a first draft of the full report is being prepared.

Social Science Curriculum Project
(R T Fitzgerald, M Ayres, P Segall)

Desert Aborigines

Under the general theme of social change, materials have been prepared on the desert aborigines and their transition from tribal to settlement life. These materials incorporate films, slides, sound tapes and photographs, and aim at helping students in grades 7 to 9 to achieve some understanding of Aboriginal culture and the effects of its contact with European culture. The materials will be tried out in schools in the third term of 1974 with the intention of publication in 1975.

Bougainville: A Case Study will be published in 1974.

REVIEWS AND COMPARATIVE STUDIES

Examinations and Their Alternatives in Transition to Tertiary Education

(P Thomson)

The Interim Education Authority for the Australian Capital Territory asked early in 1974 if we could provide them with recommendations on the nature of the assessments to be made in the schools and colleges of the Authority, with particular reference to external public examinations for entry to tertiary institutions and alternatives to such examinations.

Mr Rechter and Mr Thomson visited Canberra late in June for public discussions on the latter issue. Mr Thomson is preparing a report for the Authority which will set out the advantages and disadvantages of various approaches. It will not make specific recommendations, but will try to provide the Authority with the necessary considerations and evidence upon which to base their own judgments.

Mr Thomson visited Queensland, New South Wales and Tasmania to ascertain opinion and collect data at first hand on the procedures and results of moderation, and of school assessment. He used the occasion of a visit to South Australia in which he participated with Principals of High Schools in a conference on Assessment, to obtain a cross section of their views on examinations and various alternatives to them such as school assessment.

The Authority has asked for a preliminary report by mid-September if possible.

Australian Education—Information and Review

(R T Fitzgerald, P Segall, J Matthews)

Current developments in education are monitored and analysed on a continuing basis. This involves the sifting and assessment of publications such as parliamentary debates, press releases and newspapers, and the analysis of educational statistics as they become available. A record is also kept of changes in the career and salary structures of teachers in government schools throughout Australia.

A monthly Chronicle of Australian Education is prepared to keep ACER staff informed of current developments and to provide a record which can be drawn on for reviews of special areas. One area which is currently being investigated is the changes in educational ideology expressed in the policy and practice of governments and official bodies over the last few years. Another area of special interest is continuing education. Developments both in Australia and overseas are being monitored in preparation for the publication of a review. An investigation of aspects of the relationship between schooling and jobs is proposed. This will include an examination of employers' requirements regarding skills and certification.

UNESCO Abstracts

(J Matthews)

During the year seven abstracts were prepared for the UNESCO Co-operative Educational Abstracting Service. Significant documents abstracted included the Report of the Interim Committee for the Schools Commission (Karmel Report), the Australian Pre-schools Committee Report and the report of the Assessment Panel on the ACT Education Authority.

Poverty, Education and Adolescents

(R T Fitzgerald, A Wright, F Headlam)

This project, undertaken for the Commonwealth Poverty Commission, has two main dimensions of inquiry. The first is the study of aspects of educational disadvantage from the viewpoint of young people who have left school fairly recently. Since disadvantage cannot be understood in isolation, adolescents from high and low socio-economic levels are being compared. The second dimension is that of continuing education. Opportunities to return to education late in life are particularly important for poor youth, given the association between lower educational achievement and lower income throughout life, and an attempt will be made to assess young people's desires and needs for

further study or training. In this aspect the project forms a part of a wider study of continuing education.

The design and methodology of the study reflect the belief that the education experience, aspirations and needs of young people can only be understood in the context of their lives as a whole, as perceived by them. A sub-sample has been selected for interview from the ACER sample for the IEA Survey of Science Achievement. By limiting numbers to about 200, important areas such as work, home, and leisure can be covered, and subjective viewpoints examined to give meaning to the objective data obtained. Youth's fundamental view of themselves is seen as a key issue. In trying to assess the role of such factors as self-esteem, sense of competence, sense of control and various aspects of alienation, a major concern is to gain insight into how these subjective states influence and are influenced by external events and situations (for example, level of achievement at school).

Long individual interviews were chosen as the most appropriate research tool. While questions are open wherever possible, the schedule has had to be fairly tightly structured, so the standard interviews are being supplemented by informal talks with other young people. Discussions with teachers, employers, and others are giving broader perspective.

The report, consisting of an essentially descriptive, qualitative analysis, together with recommendations for change, is due for completion in mid-1975.

Finance for Education in Australia

(R T Fitzgerald, P Segall)

Part of this study appeared in *Quarterly Review of Australian Education* vol. 6 no. 4, 'Finance for Education in Australia: An Analysis'. This review examined the new national programs of educational funding against the background of Australia's federal system. It included a detailed account of the initiatives incorporated into the 1973-74 Budget of the Australian Government. Particular attention was given to the methods used by the Interim Committee for the Australian Schools Commission in its assessment of the needs of Australian schools.

The implications for education of the financial relationship between the national and state governments were explored, and some suggestions made as to ways of overcoming problems of responsibility and accountability. Trends in Australian expenditure on education were documented, and the review concluded with a discussion of different methods of financing education.

Further developments will be monitored, and statistics updated as

these become available. In particular, it is intended to review developments when the Australian Government's 1974-75 Budget is presented.

Community and School

(R T Fitzgerald, Professor P W Musgrave—Monash University,
D W Pettit)

The study of two schools by means of participant observation has now been completed and the study of a third school is currently being made. A monograph, which sets out the theoretical framework and research methodology and presents an inner suburban high school, will be published as a special double issue of the *Quarterly Review of Australian Education*.

Data gathered on the second study—an outer suburban high school—is being analysed and written up. The knowledge gained from these two studies is being applied in the third case study: an experimental secondary school situated in a middle suburb.

It is planned to have all of the relevant data collected by the end of November so that a comprehensive analysis and interpretation of the key issues can get under way before the end of 1974. The remaining period until the end of May 1975 will be devoted to the writing up of the study. It is anticipated that the completed manuscript will go to press at the end of May 1975.

A major objective of the current research is to formulate in the light of the evidence gathered a theoretical framework which will serve as a sound basis for the construction of various models of school structure which will take account in different ways of neighbourhood factors and the possibilities for participation by parents, teachers, citizens and students. The final monograph will incorporate not only a detailed comparative analysis of the three case studies but also a set of proposals which explicitly reflect various value positions and discuss their implications for policy and practice.

SCHOOLS COMMISSION

Evaluation of Programs

At the request of the Schools Commission we prepared in April 1974 a draft working paper discussing some of the issues involved in evaluating the two programs of aid to disadvantaged schools and of innovations. The Commission distributed it to a number of interested persons asking for comments to be returned to ACER. Three sets of comments, all from independent schools, were received.

In mid-September Dr Keeves attended a two day conference

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arranged by the Commission, to discuss aspects of an evaluation program which might yield results in time to influence the program for the 1976-78 triennium.

Submission

Along with many others, we were invited in July last to provide brief comments on matters of interest to staff members, which the Commission might take account of in preparing its recommended program for the next triennium. We were also invited, if we wished, to prepare more comprehensive material for submission in October and November. I have suggested to staff that they do this on an individual basis if they wish. Our resources in time are not enough to enable us to do more.

MEASUREMENT STUDIES

Australian Test for Advanced Music Studies

[These studies are undertaken in collaboration with Dr Doreen Bridges of the staff of the Sydney Nursery School Teachers College—a CAE]

Preparation and Distribution

(D Bridges, J Knight, P Thomson, J Baldwin)

The provisional form of the test was modified slightly before publication in August 1974 as The Australian Test for Advanced Music Studies (ATAMS). The Australian Advisory Committee on Research and Development in Education agreed that ACER should distribute the test at a cost to cover distribution, printing, and associated costs, but not development. Initially, thirty-three sets of tapes have been prepared. A set consists of three tapes, one to accompany each booklet of the three published. Distribution is restricted to tertiary institutions.

Validation

(B Rechter, D Bridges, J P Keeves, C W Slee)

In 1973-74 the provisional version of the ATAMS test was constructed, and administered to all students entering tertiary music studies in all states. The processing of the data associated with this administration of the provisional version to approximately 500 students has been undertaken. Subsequently work has been done to examine the factor structure of the three sub-tests believed to be concerned with:

- (a) tonal and rhythm memory and musical perception;
- (b) aural-visual discrimination, score reading and understanding of motivation;
- (c) comprehension and application of learned musical material.

In addition an examination of the item difficulties for groups of students with differing musical backgrounds and undergoing different musical training, has been carried out. A report examining the construct validity of the tests is in course of preparation. The Australian Advisory Committee for Research and Development in Education provided a grant to assist this project.

Australian Scholastic Aptitude Test (ASAT)

(P Thomson, J Foyster, A Grant)

Development

ASAT Series C was published in August and has been distributed to the examining authorities in South Australia and Queensland. A Western Australian version was printed and despatched in September. Work has begun on the preparation of an ASAT for 1975, when it is expected that the test will be used in at least Queensland and Western Australia.

As reported earlier, the Series C test is the last one funded by the Australian Government. Negotiations which we initiated with potential users on the understanding that they would meet construction and printing costs, lead us to believe that the test will be used in at least three states in 1976.

Psychometric Study

(R Bell, B Rechter)

A study of the psychometric properties of ASAT Series C, has been funded by the Australian Department of Education.

The project involves an examination of the relationships of ASAT with cognitive abilities defined by reference tests, a comparison of item analysis techniques, and an examination of social class differences in ASAT performance. The testing program was carried out in Queensland using twenty-one schools which volunteered to assist on request. A preliminary report was prepared early in 1974. It is clear that we underestimated the complexities of the study and presented an unrealistic timetable for it. It is intended that the report to the Australian Department of Education will fill out the preliminary report with analyses of the issues referred to above. There will, however, be much data still to be analysed and interpreted, and a number of points of interest to us still to be explored. The latter tasks must wait upon the availability of suitable staff: both Mr Rechter and Mr Bell have taken other appointments, Mr Rechter in June last and Mr Bell in October.

Test of Learning Ability

(R Bell, H Rowe)

Both the Tests of Learning Ability, TOLA 4 and TOLA 6, have been prepared in separate answer sheet format. An interim manual was prepared for the 1974 testing program of the Division of Guidance, Adjustment and Special Services of the NSW Education Department. It is expected that this will form the nucleus of a revised edition of the manual which is expected to be published along with the tests in 1975. A renorming of both tests is now planned for early 1975, so that a final manual will not be available until late 1975 or early 1976.

Validation of Descriptions of Children's Behaviour

(I Stamp, R Bell)

This project was aimed at providing some extensive data on the Behaviour Study Technique (BST), a kindergarten teacher's checklist devised by Dr Stamp, using a large sample of Victorian pre-school children. The Child Care Research Grant, which funded this work was extended in November 1973 to enable a larger sample of children to be followed up and tested with similar instruments (at the appropriate level). The report to the Child Care Research Committee was completed in September 1974; its wider dissemination is under discussion now. Data obtained in the study is incorporated in the manual for the BST.

Pre-School or First-grade Screening Tests; Diagnostic and Readiness Tests

(H Rowe)

I reported last year that in answer to increasing demands for some form of screening device for children beginning school, we were considering both the available diagnostic and readiness tests for pre-school and first graders, and the development of an instrument to enable teachers to individualize their teaching.

A specific request for such an instrument from the Victorian Education Department, in connection with a pilot study in 1974 to ascertain beginners 'at risk', led us to the conclusion that we could not recommend any of the available instruments. After discussion with the Departmental committee concerned, we prepared trial forms of a School Readiness Checklist for teachers and a School Readiness Checklist for parents. These have been used with 3,000 school beginners in Victoria this year. The checklist for parents has been translated into eight different languages.

The checklists are designed to be used as part of a screening procedure and are thus not intended to make fine, precise discriminations, nor are they intended to serve as indicators of academic potential. They are part of a proposed inter-related set of tests and instructional guidelines designed to provide teachers working with school beginners with a variety of approaches and techniques which may aid in the early identification of the student's specific needs and abilities, and in the individualization of instruction.

Assistance is being given to Mrs Rowe to validate the Checklist by the Department, and we expect a report to be available on this in 1975. The teachers involved, from three Inspectorates in the Melbourne and Metropolitan area, had a series of fifteen in-service training sessions to familiarize themselves with the Checklists, as well as with other features of the study. Mrs Rowe led the initial three of these sessions and has been fully involved in all later sessions.

Meanwhile the survey and preliminary evaluation of available diagnostic and readiness tests for pre-school and first grade children has continued as time has permitted. Systematic experimentation with several diagnostic procedures and specific methods to facilitate learning in particular areas has started.

It is intended to provide psychologists and teachers with a guide to appropriate assessment tools and procedures to serve the specific needs of individual children.

Ability Tests—Review

(R Bell)

A preliminary theoretical survey of the general intelligence test area, was completed by Mr Bell, and published as *NSW Counsellors' Bulletin no. 4*. It deals briefly with two major areas of disagreement in intelligence, the 'model' controversy, and the 'bias' question. It is expected that the review and analysis of the current range of general intelligence tests will proceed in 1975.

TEST DEVELOPMENT

Biology and Chemistry Diagnostic and Achievement Tests

Completion of diagnostic and achievement tests in biology (grades 11 and 12) and chemistry (grade 11), accompanying remedial aids and teachers handbook.

(P Thomson, M Cropley, C Kings)

Altogether, twenty-seven biology tests have been prepared and published since 1972. The last of the fourteen grade 12 tests were de-

livered to schools in August this year. Although this terminates the original biology test program, it is still hoped to increase the range of tests if additional finance (or a new secondment) can be arranged.

In chemistry, eighteen diagnostic tests have become progressively available. The last two diagnostic tests are planned to reach the schools in November this year. Two achievement tests are being produced and will be available in 1975.

Both sets of tests have been favourably received. The remedial aids accompanying the tests appear to be widely used. The biology tests, based on *The Web of Life*, are suitable for more schools than are the chemistry tests. However, as I reported last year, the chemistry tests have been used in South Australian as well as Victorian schools.

Secondary Mathematics Diagnostic Tests

(J Foyster, R Wines, M Lee)

It is the ultimate objective in this program to prepare diagnostic tests and remedial aids (concentrating on topics rather than survey tests) covering the range of secondary school mathematics, with an emphasis, at least in the initial stages, on the junior secondary level.

The rationale for writing items suitable for diagnostic interpretation of students' difficulties in mathematics has been prepared for discussion. Items have been written in two topic areas, spatial relations and logical sequences, for trial testing in third term 1974.

AM (Primary) Mathematics Tests

(J Foyster)

All topic tests in the AM series have now been published. All told fourteen tests have been published since 1972. The teachers handbook is being revised. A second classification of AM items is being made to assist teachers in their assessment and diagnosis. Preliminary work has begun on a survey test: at present the greatest need appears to be at the transition point between primary and secondary schools.

Wechsler Intelligence Scale for Children—Revised (WISC-R) 1974

(H Rowe)

An investigation is being made as to whether the American standardization sample of the revised form of WISC differs in some systematic way from the Australian population with whom the test may be used. A number of items in the revised form of the test will need to

be modified to make the test more suitable for administration to Australian children.

Australian Version of the Wechsler Intelligence Scale for Children (1968)

(R Bell)

New norms for the Australian Revision of the WISC are being prepared in collaboration with Professor J A Radcliffe and should be available early in 1975. Several attempts have previously been made to produce norms but a number of problems had prevented the completion of the task. These problems have now been overcome.

Migrant Education (Testing) Project

(P Thomson, L O'Dea, G Withers, H Tebble, R Dabke, B Cigler, E Vine)

Late in 1973 agreement was reached with the Department of Immigration on the funding of a three-year project to prepare tests and other devices for use by teachers of non-English speaking migrant children, and to modify and adapt other tests.

It was envisaged that it would be possible to modify and use in the Australian setting Tests of Proficiency in English prepared by the NFER primarily for use with the West Indian and Pakistani groups in the UK. We had undertaken preliminary work on these tests in 1973. A detailed examination of the final form of the tests convinced us that a major revision would be required if they were to meet Australian needs and conditions, and we decided that even then the tests would be less useful than if we started afresh. It may be that when our own materials are prepared, some parts of the NFER tests may be seen as complementary.

We also attempted, principally through the embassies of the countries from which our major migrant groups come, to obtain copies of normative and diagnostic tests used in their own home countries. We have had little success: only from France and Belgium do we as yet have any useful material.

We decided that rather than spreading the effort in test development over the four accepted areas of speaking, writing, reading and listening, we would concentrate most activity in 1974 on listening skills. We expect to test about twenty different pilot forms in 1974. At the same time preliminary work is being done on tests of pronunciation.

At present we propose that our tests should cover the age range from eight to fourteen, and particularly the early years of secondary school. However, it is worth noting that in terms of numbers of children concerned, the early years of school are the most significant.

Visits were made to all states by members of the project, and discussions held with teachers and officers responsible for migrant education. In addition, an intensive round of visits to schools in Victoria was made to ascertain the specific needs and preferences of teachers.

Local interest in the project has been such that the Project staff have had to limit acceptance of requests to describe their work.

A comprehensive bibliography on testing of migrant children has been prepared, and a limited amount of socio-linguistic fieldwork done to provide guidance in the design of test items.

Consultants whose services have been used by the project include Professor Rosemary Hake of the University of Chicago, Mr C Pittman of the University of Sydney, Mr A H Kerr of the University of New England, and Mr A Townsend formerly of NFER.

Item Bank Project

(P Thomson, C Kings, J Foyster, and seconded staff)

Since September 1973 the program of item-writing workshops and editing of items for trial testing has continued. The culmination of this work was the preparation of 150 trial tests of about twenty-four items each, in mathematics and science. These were delivered by the printer in August, and have now been distributed to all states for the trial testing program which begins in September.

Work on the project has required and received the co-operation of state education departments and the Board of Secondary Education in Western Australia, working through state liaison officers. A meeting of liaison officers was held in May this year; the next meeting is scheduled for November.

Officers seconded from Queensland, South Australia, Victoria and Western Australia have assisted us, particularly in the editing of items. During the year since the last report, item writing workshops have been held as follows: Science—Adelaide, Hobart, Launceston and Melbourne; Social Science—Brisbane, Perth. Mathematics Workshops were held in 1973 in Adelaide, Brisbane and Melbourne. Mr Rechter, Mr Thomson, Mr Foyster, Mr Kings, Mr Clarke and Mr Piper have all acted as leaders in one or other of the workshops. These usually extend over a number of days, and are attended by about twenty practising teachers.

Social Science Evaluation

(K Piper, J Knight)

In the second stage of this project a set of criterion-referenced measures in secondary social science has been prepared in each of the areas of:

- (a) understanding concepts and generalizations;
- (b) cognitive skills;
- (c) affective outcomes.

From the twenty-three trial forms which are being tested in all states, final forms of about forty cognitive tests and twelve affective measures will emerge. Criteria for evaluation in secondary school social sciences will be defined in a document which should prove an important adjunct to the measures themselves, not only by providing an evaluation model, but also as an aid to curriculum development in the social science area.

The final form in which these materials will be published, and the source of distribution, rests with the Australian Department of Education through the National Council for Social Science Teaching in Secondary Schools.

Co-operative Scholarship Tests

(Test Preparation—P Thomson, J Foyster, J Knight; Service—E Watson)

The 1974 Co-operative Scholarship Tests were administered in July, and marking of the written expression section has again been carried out at ACER. Nineteen-seventy-five will mark the last year of a four year development program during which ACER was contracted to produce four completely new sets of scholarship material.

The program is conducted on behalf of a number of independent schools. In 1974 there were approximately 9,500 candidates registered for scholarships offered by 113 schools. The examination is at two levels: Level 1 (grades 6 and 7) and Level 2 (grades 8 and 9). ACER is responsible for supplying and marking all tests and provides reports to all co-operating schools. There is an examination centre at each of those schools. However, in addition, we set up a number of other centres in country areas and overseas, and obtain supervisors for them. In 1974, there were fifty-eight country centres, and twenty-seven overseas centres.

TESTING SERVICES

Two regular programs have been discontinued. The Australian Government has discontinued the award of scholarships under the Commonwealth Senior Secondary Scholarships scheme. There was, therefore, no examination conducted in 1974. The Victorian Primary Schools Testing Program has been discontinued as a major project, at least for the time being. No testing was conducted during the year 1973-74.

NSW Primary Evaluation Program

(W Renchan, R Wilkes, B Johnson)

This program, which began as the NSW Basic Skills Testing Program in 1962, continues as a co-operative venture between the NSW Department of Education and ACER. Under this program during 1973-74 tests in mathematics, reading, spelling, listening comprehension and study skills were distributed to approximately 1,100 NSW government schools. In the interests of economy the printing of answer sheets has been undertaken by the Government Printer in New South Wales and their distribution, since early 1974, by the Schools Supplies Branch of the Department of Education in that state.

During first term 1974 more than 200 schools took part in a program to provide normative data on the mathematics tests (Series M). This makes possible the publication in 1975 of first-term norms to supplement the third-term norms available since 1972. Using additional data supplied by the Department of Education, test intercorrelations have been calculated for all tests in the program.

As the result of a series of meetings between members of ACER staff and officers (including teachers) of the Department of Education, the revision of Test R (Reading) is under way. Material selected for inclusion has been graded for readability using cloze procedures. Test items are being written to a rigorous model devised by Dr Clark and Miss Johnson as a result of their research into the structure of reading abilities.

Miscellaneous Testing

(R Wilkes, J Baldwin, B Johnson, J Prater)

Confidential achievement tests, developed for use in conjunction with the ACER Diagnostic Chemistry Tests, and the Victorian Leaving and Matriculation Physics Tests, are distributed annually in third term.

ACER continues to provide supervision for a number of Educational Testing Services (USA) examinations and to advise students requiring information about them. A similar but smaller service is provided for the Psychological Corporation of New York.

A number of smaller programs (notably for the University of Melbourne Residential Colleges) continue to be conducted.

ACER also assisted a number of institutions in Australia by processing results from ASAT and TEEP papers, largely in connection with the entry of 'early school leavers' to those institutions. Institutions involved were Monash University, Murray Park CAE, Torrens CAE, Adelaide CAE and Lincoln Institute.

DATA PROCESSING

(K Ross, C Slee)

During the first half of 1973 it was decided to develop our own data processing system, rather than to remain dependent on external computer centres and consultants.

After considering the costs and convenience associated with a variety of machines which had time available for sale, the IBM 360/50 machine at ICI was selected as a base for ACER's work. We are maintaining flexibility by using the computing facilities at the University of Melbourne and Monash University when required.

The OSIRIS package, an integrated collection of computer programs for the management and analysis of survey data, has been stored on permanent disk storage at ICI along with several other program packages which were specifically designed to handle a wide range of multivariate analyses in social science research. These packages have been stored in a fashion which allows a researcher with limited programming experience to readily employ complex data analysis techniques.

In addition to these program packages a library of documented computer programs which cover more specialized analysis techniques is being developed. This library includes programs which have been written or modified by ACER staff to cope with problems which are specific to certain ACER research projects.

The analysis of small bodies of data at ACER is carried out with the assistance of the CANOLA 164P programmable calculator. A series of programs has been produced to cope with analyses ranging in complexity from the calculation of simple means and standard deviations to the plotting of least squares regression lines. These programs have been documented and compiled into a manual which gives a step-by-step account of the necessary operating procedures.

A regular data processing bulletin provides information to ACER staff about the programs and services which are available. Several of these bulletins ('The Measurement of Social Class' and 'Canonical Variate Analysis') have reached a wider external audience of researchers and students.

Mrs Edith Cooper, with the assistance of an IBM 4/29 card punching machine, has been able to meet the majority of ACER staff requests for the entry of research data on to punched cards. During the occasional rush periods of trial testing sessions, any overflow of work has been directed through the ICI punching service.

We plan to establish a co-ordinated test scoring and item analysis system for use by ACER research staff involved in the construction of educational and psychological instruments.

ADVISORY SERVICES

Educational

(P Jeffrey, J Eppinger, N McBean)

Requests for assistance in the selection and interpretation of tests at all levels and in all subject areas have continued to increase. Our advice and guidance is also sought regarding administrative and organizational matters relating to the use of tests and to other aspects of evaluation. Many of these enquiries have been in connection with the Schools Commission programs, and concerned with enrichment or remediation. A growing number of enquiries are connected with the provision of tests, programs, and materials for migrant children. These have been difficult to satisfy adequately.

A high level of demand for assistance by teachers of junior secondary school classes, noted in last year's report, has continued, but most enquiries are still from primary schools. An analysis of mail enquiries shows that those from Victoria, New South Wales and South Australia are at about the same level, but many Melbourne teachers and lecturers also call at ACER for personal consultations, or telephone for assistance.

During this year a number of library collections of tests have been established in various teachers' colleges and teacher centres. We have assisted with the selection of suitable tests and provided guidance in procedures to manage the materials efficiently. Many institutions appear to support the idea of decentralized test libraries of commonly used tests, with recourse to the ACER Test Library for examination of specialized instruments. More effort will be expended in future to encourage all institutions with teacher education functions to establish a small collection of tests and related literature. Establishment of such test libraries will help ease the burden on our Test Library staff, who have had a very high level of borrowings throughout the year. Despite the heavy pressure to borrow tests and other materials, and the loss of some part-time clerical help, Advisory Services Library staff has continued to reorganize its collection to facilitate routine work. However, much remains to be done.

Curriculum materials evaluations have gone ahead this year despite other demands on time. A number of enquiries for evaluative information on such materials have been received from individual teachers preparing to purchase, and from education lecturers teaching materials evaluation techniques. Our evaluations consist mainly of studies of materials already stocked by ACER, but include also the pre-publication trial of a pre-school program the *Peabody Early Education Kit* (PEEK), American Guidance Services and other materials such as *Perceptual Skills Curriculum* by J Rozner, and *Individualized Science*

Imperial International Learning Corporation, which might eventually be stocked by ACER.

We are limiting our evaluations to materials which have a definite research basis and which have included some form of empirical evaluation procedures in the development of the program and supporting materials.

Talks given to teachers and other groups, by all advisory officers, have provided valuable insights into the types of tests and materials needed by teachers, as well as providing an opportunity to publicize ACER in general and the particular services available. The use of portable display units at conferences, workshops, and seminars has made it possible to bring ACER's work to the notice of a much wider audience. Interstate travel has been limited to a tour of schools and other education centres in Queensland and attendance at the Annual Conference in Sydney of the Australian School Librarians Association. Pressure of other work has prevented the acceptance of other invitations.

The *Advisory Services Bulletin no. 1* (General Information on ACER), *A Graded List of Tests and Materials Available from ACER* and *ACER Publications* were updated and reprinted for distribution: primarily to final year teacher education students throughout the country, but also to about 7,000 teachers via displays, teacher centre mailings, and ACER staff and other lecturer distributions. Priority given to other tasks has precluded the preparation of further numbers in the *Advisory Services Bulletin* series, but a number of service documents supplementing interim test manuals or providing information for local users of overseas tests have been prepared. Advisory Services staff have also made a substantial contribution to the production of several test manuals.

The *ACER Educational Catalogue* was reorganized to effect economies in production and also to emphasize the growing stock of educational materials available from ACER. Among the new materials are four sets of materials from American Guidance Services. One of these, the *Developing Understanding of Self and Others* (DUSO) program has created a great deal of interest in several states, and generated an increasing number of enquiries. Answering these has been assisted considerably by the trials and evaluations of the DUSO and other materials, conducted through advisory services.

In order to facilitate the answering of many separate enquiries about the same item, a number of advisory leaflets have been prepared, in particular about the Progressive Achievement Test in Reading, the ACER Primary Reading Survey, and the (ACER) Primary School Mathematics Tests (Series AM).

Mrs Judith Eppinger resigned from Advisory Services at the end of 1973 and her place was taken by Mrs Noel McBean from the Testing Services unit. Advisory Services has hence been able to avoid

what might have been a severe hiatus in terms of experience. Mrs Eppinger has given us part-time help in the preparation of manuals and other items for publication or distribution.

Psychological

(D M Bradshaw, J C Jenkinson, J Baldwin—half time)

The increasing opportunities for employment of psychologists (and related professions) has again been reflected in demands on psychological advisory services. Staff participation in other projects, or evaluation of tests and materials, has therefore been more limited than I would like to see. In particular, since Mrs Bradshaw's departure for study leave overseas in March Mrs Jenkinson's time has been fully taken up in dealing with day to day enquiries.

The number of courses in special or remedial education, currently being planned by the education faculties of many universities and CAEs is creating a demand from lecturers for suitable psychological tests to include in their programs. Also worthy of note is the employment of psychologists in new community health centres in some states, and a corresponding demand on ACER for advice on appropriate tests. The growing recognition of the importance of psychology in health services is also seen by its inclusion as a subject in undergraduate medical courses. Staff have been approached to advise on suitable materials for use in such courses. Other enquiries have continued to grow in the educational, paramedical and employment areas.

Publications during the year have included the ACER *Bulletin for Psychologists* nos. 19 and 20, annotated test bibliographies on pre-school tests and school readiness tests, and a leaflet containing catalogue extracts of tests available for speech therapists. A new personnel catalogue, under the title 'Tests for Personnel Selection and Training, 1974', was duplicated and distributed in April. This created a renewed interest in the use of tests by many personnel officers, and a number of new enquiries from others hearing of it indirectly.

Bulletin for Psychologists no. 21 is to be prepared overseas by Mrs Bradshaw if time permits. Present plans are to begin work on a new Psychological Catalogue towards the end of the year.

Those projects in which it was possible to participate earlier in the year included, in co-operation with Educational Advisory staff, a limited trial and evaluation of the Stanford Diagnostic Reading and Arithmetic Tests in some Melbourne schools.

Again, the demand for psychological tests has placed increased pressure on our Test Library resources. The assistance of part-time clerical staff has to some extent helped to relieve this, and has enabled the cataloguing of our growing collection of books and materials relating to psychological tests, counselling and special education. Ad-

ditional pressures, both on staff and available space, also arise from the multitude of new tests, and new editions of old tests, coming on to the market. Some time is spent by professional staff scanning catalogues of overseas publishers, journals and other sources in an attempt to keep abreast of new publications in this field.

The only display arranged during the year was for the recent Australian Psychological Society Annual Conference in Perth. Considerable interest was shown by many of the 400 delegates attending, both in tests displayed and in Bulletins, catalogues and bibliographies.

ACER policy regarding the supply of psychological tests was revised in May to bring qualifications requirements in line with APS membership requirements. This has resulted in some problems, particularly in Victoria, where a lower academic standard is accepted for registration under the Psychological Practices Act. A similar situation could arise in South Australia when the new Act there comes into force. Further problems are arising with education and other government departments where school counsellors and guidance officers are accepted with a three-year major, and where the year of in-service training provided is not recognized by the APS as equivalent to a fourth academic year. Some occasions of abuse of psychological tests which have come to the attention of Psychological Services staff have highlighted the need for careful restrictions on their supply.

Library

(Librarian-in-charge: M P Carrick)

This period has seen the introduction of three major projects which have directly affected the library: the Poverty Enquiry, the School and the Community, and Migrant Education. As these are subject areas in which little had been acquired, heavy ordering of new monographs, new periodical titles, microfiche titles etc. was necessary. New research staff members and new areas of research have made no small impact on library staff which has not only not been increased, but has been reduced by one part-time member. Circulation generally has increased to 11,227 transactions during the past twelve months. This refers only to staff borrowings; items to and from other libraries have shown a matching increase. ACER still lends considerably in excess of the number of items which it borrows, e.g. in 1973-74 we lent 1,460 items and borrowed 818 items. Each year these statistics increase by some ten per cent, in addition to the far more time-consuming requests for information and bibliographies.

Increase in library usage and library stock has brought to the fore the severe difficulty of housing our stock adequately. An additional 144 feet of shelving provided early in 1974 has now been entirely absorbed by the collection. The Serials Collection was checked in toto

for redundant material in the hope of freeing some shelf space. Very little unfortunately could be discarded, so the problem still remains of how to provide adequate housing for some 11,000+ bookstock and some 2,000+ periodical titles in addition to a microfiche reader, and a display rack for new material etc., and yet retain sufficient room to accommodate users. More shelving will have to be added and this will inevitably encroach on the seating space available to readers.

The period 1973-74 has seen the publication of titles of value to other libraries and users: *Serials in Education in Australian Libraries*, 3 volumes, edited by M A Findlay; *Directory of Philanthropic Trusts in Australia* by E K Hart, revised by C A Brown, and *Education Theses: A List of Theses in Education Accepted for Higher Degrees at Australian Universities*, compiled by C A Brown.

In sum, the year has been one of expansion for the library in terms of material acquired and services provided but these have brought accompanying problems due to the limitation of the physical facilities available.

The preparation of the *Australian Education Index* still continues to be one of the main pre-occupations of the Librarian-in-charge. Its comprehensiveness makes it a valuable tool to the increasing number of libraries in centres of education. Inevitably, of course, it adds to the numbers of requests we receive for information and the borrowings on inter-library loan.

While the present pressure on library services continues, it will not be possible for the library staff to prepare bibliographies or other documentary reference materials other than the Index.

TRADING OPERATIONS

The Distribution Services Division* is responsible for all functions involved in our trading operations including inventory control, procurement of stock, invoicing and despatch of sales orders. In addition it provides service facilities to other sections within ACER by the receipt, storage and distribution of subscription journals, testing program materials, test library loans and trial testing items.

Trading activity has continued to expand. Excluding royalties and subscriptions to journals the gross sales income was \$690,792. This compares with \$600,340 in 1972-73. There has been approximately one hundred per cent growth in the five year period since 1968-69 when \$340,815 was received.

Over 21,500 invoices were issued to supply the 19,573 separate

* E. McIlroy is Officer in Charge of the Division, reporting directly to the Senior Executive Officer.

orders received and the following analysis will indicate the end use of our material on a geographic and institutional classification.

New South Wales	\$229,014	Primary Schools	\$106,544
Victoria	184,855	Secondary Schools	53,103
Queensland	76,656	Non-government Schools	74,753
South Australia	77,218	Universities	39,975
Western Australia	61,156	Teachers Colleges	29,789
Tasmania	21,238	Education Departments	227,012
A.C.T.	27,617	Other State Departments	84,066
Papua New Guinea	2,231	Australian Government	
New Zealand	5,128	Departments	15,596
Other—Overseas	8,194	Other	62,469
	<hr/>		<hr/>
	693,307		693,307
Less Adjustments		Less Adjustments	2,515
(credits, returns, etc.)	2,515		<hr/>
	<hr/>		\$690,792
	\$690,792		<hr/>

Further analysis reveals that before adjustments we received \$451,233 from the sale of tests and associated components compared to \$356,008 in 1972-73. Income from the sale of educational materials was \$177,917, and from books \$33,209, and \$30,948 came from the imports and special printings of items not catalogued or normally held in stock. The equivalent figures last year for the three latter categories were \$186,557, \$32,457 and \$30,671 respectively. It will be noted therefore that the overall increase in income was all derived from the test area.

A limited number of items again provided a relatively high percentage of our income. Eighteen items with sales in excess of \$10,000 produced income of \$313,000. An additional seventy-eight items with income between \$1,000 and \$10,000 contributed \$193,000. Less than one hundred items therefore produced more than \$500,000. We currently catalogue and stock some 450 items (1,300 separate components).

The eighteen items referred to above comprise eleven tests and seven items of educational materials. The tests are: ACER AM Mathematics tests, ACER Biology tests Form 5, Progressive Achievement tests Form A, Wechsler Intelligence Scale for Children, ACER Biology tests Form 6, ACER Test of Learning Ability (2 levels), Revised Stanford Binet Intelligence Scale, Illinois Test of Psycholinguistic Abilities, ACER Primary Reading test Form R, and Neale Analysis of Reading Ability. The educational materials are Peabody Language Development Kits Level P, Level 1 and Level 2, Western Australian



Reading Development Scheme, Programmed Reading Kit, and Individual Mathematics Program (IMP) Kits B and C.

It is significant that of these items, seven are published by ACER, two reprinted by ACER under licence, seven imported from the overseas publisher and the two IMP kits published in Australia by arrangement with ACER. In aggregate approximately \$260,000 was received from the sale of ACER publications and \$430,000 from non-ACER publications. The latter figure includes an estimated \$80,000 from items reprinted by ACER under licence.

The direct charges set against the gross income are the costs of printing and purchase of the items sold, royalties paid, freight, advertising and the salaries of the staff of the division. In addition charges for rental, administrative salaries and overheads and for costs of the associated Advisory Services and Publishing Division services are made. The nett result was a trading surplus of \$131,741 compared with \$140,838 in 1972-73.

During the year we negotiated the transfer of our New Zealand book agency from Educational Books Ltd. to the New Zealand Council for Educational Research. NZCER will now distribute both ACER tests and books. We also extended our arrangements with American Guidance Service Inc., and late in the year received initial stocks of certain new items including the two kits of Developing Understanding of Self and Others (OUSO), Peabody Articulation Cards and the Goldman Lynn Sounds and Symbols Development Kit. In view of the previous wide acceptance of the Peabody Language Development Kits, we believe that these new materials will meet an Australian need and be a worthwhile supplement to the range of materials that we distribute.

Following the general revision of pricing policy in May 1973 reported last year, prices were maintained without change for most of the financial year. Increases in charges for printing and packaging materials, freight and postal charges, customs agent fees and staff salaries, necessitated a further review. At the same time we took the opportunity to reconsider our freight policy. In 1970 we had amended our previous freight free policy by the introduction of a freight surcharge for all deliveries. Whilst the surcharge maintained a common price for delivery anywhere within Australia, the policy resulted in some problems and misunderstanding and we therefore decided to eliminate the surcharge. Prices were increased by an average of seventeen and a half per cent gross from April 1974 but after allowance for the elimination of the five per cent surcharge, this represented an average nett increase of twelve and a half per cent. In the case of imported items the nett increase was limited to seven and a half per cent to allow for variation in the exchange rate of Australian currency. This enabled us to pass on to users the resulting reduced cost of imports.

PUBLISHING

Australian Journal of Education

The Australian College of Education has decided to publish its own journal, and not to use the *Australian Journal of Education* after 1974 as one of the annual subscription benefits to College members. We have tried to find out how many College members will continue as subscribers to the Journal, but the very low response to a circular with that intent included in the first number of this year's Journal made it impossible to estimate likely subscribers to the 1975 Journal.

The Australian Association for Research in Education proposed joint sponsorship of the Journal. The State Institutes, with the exception of New South Wales, could see little benefit at present in the idea. The number of Association members is small, and the Journal already has a high percentage of research articles. I think the question can be kept open for a year or so from the ACER's point of view: the Association has not yet made its requirements for a journal very clear.

Reporting Results from Empirical Research and Analytic Studies

Over the last two decades we have had a number of different kinds of publications: general books, studies in our Research Series, Quarterly Reviews, Progress Reports, Information Bulletins*, Occasional Papers, Library Bulletin, Chronicle of Australian Education*, Newsletter, Bulletin for Psychologists, Overview*, and others. There is no single medium of communication that satisfies every need, and we have still much to do to make our work more widely known to those directly interested and in a position to make use of it.

We are trying a new approach at present in promulgating information about both the IEA studies (Mr Rosier, Mr Ross and Dr Keeves), and the Home Environment and School Study (Dr Keeves). Brief statements, complete in themselves and about a limited topic, are being produced internally. They are distributed to our 'complimentary list' of 180 individuals, centres and libraries in Australia and abroad, and to a small number of other people known to have an interest in the particular matter. In addition, our printing includes a small number of additional copies which are sold or made available free to persons requesting them who appear to have a real interest in the topic. One valuable effect of the procedure hoped for is that it will build up a better, more rapid, communication between workers in the same area. Each series has a distinguishing ACER number as well as its own title. Our hope is that, being short and devoted to one theme, each

* These forms of publication have now been ended.

will be read, whereas if it were embedded in a larger volume it might well be overlooked.

Some of the articles are reprints from journals or publications: this fact is clearly shown in the publication. Each number in the series also contains a list of the titles of all the numbers in the series. If any is out of print, this will be made clear.

Publishing Division Activities

(D Maguire, A Kumm)

Publishing activities this year mirrored the general growth in the activities of the Council. Internal editorial effort was used to assist the publishing staff in coping with this growth. We also increased the proportion of work being typeset, printed and bound internally. The effect looked for has been an improvement in delivery times, particularly on publications for which topicality is important.

Our membership of the Australian Book Publishers Association continues to provide opportunities both to benefit from the experience and problems of other publishers, and to allow us to contribute, in a comparatively small way, to the development of Australian book publishing. For example, Mr Maguire's membership of the Association's Educational Promotions Committee may be of some assistance towards an improvement in understanding between the publishers and users of educational materials.

During the year the government announced a proposed extension of the subsidy to book publishers—the Book Bounty. Our eight-page tests are expected to become eligible for bounty. The bounty percentage will also be increased from an effective twenty per cent to twenty-five per cent of the printers' invoices. This extension of the book bounty should go some way towards offsetting the increases in printing charges caused by rises in labour and paper costs.

More interest and concern has been focused in Australia this year on the problems of copyright. It is the task of the publishing group to ensure that full permission and associated conditions files are maintained for all the Council's publications. Even for public examinations prepared by the Council it is important to comply with the Copyright Act. If such papers are to be used in any way beyond the immediate requirement of a public examination, permission must be sought to use copyright material. This has added to costs, and required the preparation of such papers earlier, to allow time for permissions to be obtained.

Books, Reports, Papers and Periodicals Published

*THOSE IN PROCESS IN SEPTEMBER 1973 AND COMPLETED
BY 31 AUGUST 1974*

(a) Books and Reports

Hierarchical Structure of Comprehensive Skills vol. 2, Milton L Clark
Factorial and Smallest Space Analysis of Primary Reading and Listening
Test Correlations: An Empirical Study of Grade 7 Children's Per-
formance. (ACER Research Series no. 94)

The evidence for an hierarchical cognitive structure of reading and
listening comprehension was reviewed in vol. 1 of these two mono-
graphs in the ACER Research Series. A three-faceted model of com-
prehension skills has been developed and an attempt to validate it at
the Grade 7 level in Western Australia is described in this second
monograph.

Teaching Behaviour and Pupils' Number Development by Graham
Allen

A study of the relationship between the verbal behaviour of teachers
in their classrooms and the development of their preparatory grade
students in number achievement. (ACER Research Series no. 93)

Directory of Philanthropic Trusts in Australia, E K Hart revised by
C A Brown

Provides information on 284 trusts and foundations offering financial
support for educational, social, artistic, charitable and religious pur-
poses. The previous index sections have been considerably expanded
and a new index on Classification of Grants According to Charitable
Purpose added.

The Malvern Project, General Report by B Hawkins

Technical Report by B Hawkins

These reports concern a three-year trial of closed circuit television in
four secondary schools, with particular regard to the uses of CCTV
to add to the effectiveness of classroom teaching.

Current Issues in the Teaching of English, report on a Questionnaire
Study. *English Curricula in Australia*, prepared by W T Renahan with
the assistance of Mrs C Ryan (nee Vaughan).

These papers were prepared at ACER and appeared as appendixes in
the report of the Australian UNESCO Seminar on the Teaching of
English, Sydney, 1972. The report was published for the Australian
National Commission for UNESCO by the Australian Government
Publishing Service.

(b) Periodicals

Bulletin for Psychologists no. 20

Australian Education Index vol. 16 no. 3

Quarterly Review of Australian Education vol. 6 no. 2 'Socialization
in Australian Schools' by P W Musgrave

**THOSE STARTED SINCE SEPTEMBER 1973 AND
COMPLETED BY 31 AUGUST 1974**

(a) Books and Reports

Library Publications:

Education Theses compiled by Cecily Brown

A list of theses in education accepted for higher degrees at Australian universities. It has been compiled to serve as a supplement to the

Bibliography of Australian Education from Colonial Times to 1972. Education has been interpreted broadly, and any higher degree thesis that might be expected to be of interest to those concerned with educational research has been included. (With few exceptions only Master and Doctor theses have been included.)

Serials in Education in Australian Libraries, vols. 1, 2 and 3

A Union List. Edited by Margaret A Findlay

The list has been compiled as a further aid to those seeking locations for education serials in Australian libraries.

IEA (Australia) Reports 1973:

1973: 1 *Science under scrutiny* by Malcolm J Rosier

1973: 2 *Home background is major factor in school results* by
Malcolm J Rosier

1973: 3 *A statistical picture of Australian science teachers—some
results from IEA science project* by Malcolm J Rosier

1973: 4 *A national approach to science education research* by
Malcolm J Rosier

1973: 5 *Variation between Australian states in science achievement*
by Malcolm J Rosier

1973: 6 *Difference between the sexes in mathematics and science
courses* by John P Keeves

1973: 7 *The mobility of teachers of science in Australia 1970-1972*
by Wendy H Williams

1973: 8 *The sampling and administration of the IEA science project
in Australia 1970—a technical report* by Malcolm J
Rosier and Wendy H. Williams

1973: 9 *Science education in Australia from an international per-
spective* by Malcolm J Rosier

1973: 10 *Variation between countries in science achievement* by
John P Keeves

IEA (Australia) Reports 1974:

1974: 1 *An examination of the internal structure of the Coopersmith
Self-esteem Inventory for Australian 16-year-olds* by
Kenneth N Ross

1974: 2 *The effects of the conditions of learning in the schools on
educational achievement* by John P Keeves

1974: 3 *Implications of the results of the IEA science project for the teaching of science in Australia* by Malcolm J Rosier

Educational Counselling Services in Australia by G D Bradshaw

The first draft of this report prepared for the ACER, based on visits to all states in late 1973, was typeset, printed and bound by ACER.

ACER Educational Catalogue

The catalogue provides detailed entries for the items carried in stock at ACER to meet the requirements of government departments and institutions, universities, schools and psychologists. It includes items published by ACER and a selection of items of overseas publishers which are well known and/or extensively used in Australia.

(b) Occasional Papers

no. 7 *Pre-school Enrolments in Victoria* by Marion M de Lemos

This analysis reveals wide differences in the provision of pre-school facilities in different local government areas.

no. 8 *The Primary School in the Community* by R T Fitzgerald

A survey of teacher, student and parent attitudes. This study reveals striking differences among teachers, children and their parents in their views about the role and function of the primary school. These different perceptions suggest the need to bridge a serious communication gap between the three parties involved.

(c) Periodicals

Quarterly Review of Australian Education vol. 6 no. 3

'Alternative Education: What Choice or Difference?' by R T Fitzgerald, J K Matthews and P P Thomson

Australian Education Index

vol. 16 no. 4 November 1973 compiled by Cecily Brown

vol. 16 Cumulation 1973 compiled by Cecily Brown

vol. 17 no. 1 May 1974 compiled by Mary Carrick

vol. 17 no. 2 July 1974 compiled by Mary Carrick

ACER Newsletter

no. 18 September 1973

no. 19 December 1973

no. 20 March 1974

no. 21 June 1974

The Newsletters featured articles on such topics as the IEA science project, ACER as a Test Centre, migrant education project, and poverty and education.

Major Tests and Kits Published

The normal intensive program of test publishing was maintained. Al-

though the CSSSE tests were not published this year the gap was more than filled by the printing of the ACER Test of Advanced Music Studies and the production of a new series of Chemistry Diagnostic tests. The brief summary given below will give a guide to the activities carried out.

Scholarship

Co-operative Scholarship Testing Program

Tertiary Projects

Australian Scholastic Aptitude Test Series C, Books I & II and the Western Australian version.

(This year the tests were prepared by ACER and published by the Australian Government Publishing Service for the Australian Department of Education. However, the normal pre-printing steps, including design and proof-reading were carried out by ACER).

ACER Test of Advanced Music Studies, Books 1 to 3, Information Sheet and Answer Sheet.

Testing Programs

NSW Primary Evaluation Program

Test of Learning Ability Grades 4 and 6

Diagnostic/Achievement Tests

ACER Biology: Revised Form VI DU1; DU2; DW1; DV1; AU1; AW1; DV2; DV3; DX1; DY1; AV1; AX1; AX2

ACER Chemistry: New Form IV Series L: 1LA; 1LB; 2NA; 2LB; 3LA; 3LB; 4LA; 4LB; 5LA; 5LB

ACER Mathematics

AM10; AM14

Reading

Progressive Achievement Test. Teachers Manual

Co-operative Reading. Comprehension Test L & M, Manual for administration.

Primary Reading Survey. Interim Manual AA, BB

Kit

Naylor-Harwood Adult Intelligence Scale. The kit was published by arrangement with the Psychological Corporation after problems regarding the manufacture of the blocks had been solved.

Reprints

There were 322 separate reprints during the year including two reprints of *Living Aids through the Grades* by David H and Elizabeth F Russell and *Reading Aids through the Grades* by David H Russell and Etta E Karp.

Study Type of Reading Exercises (secondary level) by Ruth Strang was reprinted as were the three kits: Wechsler Adult Intelligence Scale; Wechsler Intelligence Scale for Children; and the Western Australian Reading Development Scheme.

Publications in Production

At the end of August 1974 we had in production two books, five periodicals, three major tests, a set of learning materials, and three Advisory Service publications.

BOOKS

A Study of Concrete and Formal Operations in School Mathematics: A Piagetian Viewpoint by K F Collis (ACER Research Series no. 95)
Career and Salary Structures of Teachers in Government Schools in the Australian States. Third edition August 1974, compiled by W C Radford and J Matthews. In addition a Supplement was being produced for information on New Zealand structures.

PERIODICALS

Quarterly Review of Australian Education vol. 6 no. 4.
'Finance in Education in Australia: An Analysis' by P Segall and R T Fitzgerald
vol. 7 nos. 1 and 2 'School and Neighbourhood: A Case Study' by R T Fitzgerald, P W Musgrave and D W Pettit (The new title for this series is *Australian Education Review*.)

Australian Education Index
vol. 17 no. 3, September 1974

IEA (Australia) Newsletter
no. 3 August 1974

ACER Newsletter
no. 22 August 1974

MAJOR TESTS

ACER Chemistry Diagnostic Tests Series L
8LA to 9LB

ACER AM Maths
Revision of Interim Supplement and Handbook

ACER Australian Test of Music Studies
Tapes
Score Keys
Interim manual

KITS

Bougainville: A Case Study, designed initially by B M Bullivant.
The kit is being edited and updated by A Kumm prior to publication.

ADVISORY SERVICES PUBLICATIONS

Advisory Services Bulletin no. 1, 1974 edition

Graded list of tests and materials

List of Publications available from ACER

INTERNATIONAL ASSOCIATION FOR EDUCATIONAL ASSESSMENT (IAEA)

In April 1974 representatives of a number of institutions and centres met at Educational Testing Service (ETS) to consider the setting up of an international association of such places concerned with evaluation, measurement or assessment, and to try to see what purposes such a body could serve. We had expressed interest in the proposal, but did not think that the cost of attending justified a special visit to USA for the meeting.

It has been decided that IAEA should be established. Its constitution will be worked out, I expect, before the time of the ACER's Annual Meeting. It will be a world wide network, if hopes are realized. Ninety-two agencies including ACER were invited to meet at ETS, and thirty-five participants from eighteen countries attended. Amongst the proposed purposes of the network, intercommunication received very high priority: intercommunication of problems, of methodology, and of results all being seen as important. Conferences would have some part to play, but other means were thought to be as important. No grandiose plans were or are envisaged: it has been generally agreed that any association should begin modestly and be fairly loose and informal. There was general agreement that membership should be limited to non-profit agencies, but a realistic recognition that there could be many centres in the one country with an interest in the Association.

I expect that during the next twelve months some clearcut plans and activities for the IAEA will be proposed and prepared, and that ACER will be involved in them.

STAFF MATTERS

Director's Activities

I have found my comparative freedom from outside commitments this

year a very considerable relief. It has enabled me to give more undivided time to projects and to read a slightly larger but still all too small part of the number of new books and journal articles relating to education.

I have deliberately also reduced my interstate travelling this year, whilst encouraging other members of staff to travel more, in order to widen as far as possible our range of direct associations with schools, teachers, education departments, and tertiary institutions.

I spent a week at St Andrews University in Scotland at the end of September at a meeting of the IEA Council. The SCRE were hosts to the Council for the time of the meeting, the chief purpose of which was the planning of further studies under IEA auspices. Our main interest is in a repeat study of achievement in mathematics, first conducted in 1964. I took the opportunity while in UK to talk with the Directors and officers of SCRE and NFER.

Appointments and Resignations

Once again there has been a considerable movement in the clerical staff, some of it due to the reduction in our service programs, and some to the attractions of other jobs. Stability in both the Accounts staff and in the Sales and Distribution staff, however, has contributed to their steady and effective output of work.

On the professional side we welcomed Miss R Wines to the staff of our test research and development division, and Miss M Carrick, who took over the position of Librarian-in-Charge when Mrs C Brown moved to Tasmania. Mrs A Kumm was appointed as Assistant Publishing Officer when Miss L Bauchman resigned. Miss A Read and Mrs M Batten rejoined us after periods overseas, the former to assist in the study of the specialist science students (see p. 9) and the latter to take up the research tasks involved in evaluating the in-service program in Victoria (see p. 16).

Five new members joined with Mr G Withers of our own staff to form the team engaged in the migrant education project. Mrs L O'Dea directs the group, which includes Mrs B Cigler, Dr R Dabke, Miss H Tebble and Miss E Vine. By arrangement with the Victorian Education Department the services of Mrs O'Dea, Miss Tebble and Miss Vine have been made available to the project by the Department.

We regretted the departures of a number of our professional staff members. Mr B Rechter, who had been the head of Test Research and Development for seven years, was appointed Principal of the Lincoln Institute and took up that appointment in June last. Mr R Wilkes, who had been in charge of our Educational Services, took up in July an appointment at the University of Queensland. Mr G Heath also left Educational Services in February last for an appointment at the

Preston Institute of Technology. Mr S Meredith accepted a position at Monash University shortly before that, and Mr J Lumbers an editorship in CSIRO. Miss D Johnson resigned in July last, and Mrs J Eppinger, Mrs D Koch and Mrs E Sidell at the end of 1973. Mrs W Williams decided to take up full-time training as a teacher and accepted a studentship at La Trobe University for 1974. Mrs J Tyler completed her term of appointment as editor of the revision of JSSP, and returned to England in March last.

Before this report is tabled at the Annual Meeting, Mr R Bell will have taken up an appointment in the Research Unit in University Education in Western Australia.

Several of our seconded staff returned to other duties—Miss O'Shea to a staff appointment at La Trobe University, and Mrs I Alfred to teaching migrant children. In their places we have welcomed Mr M Cropley, Miss M Lee and Mr R Smith.

Secondments

During the last twelve months we have been fortunate to have many seconded teachers and others working with us. The Western Australian Education Department generously extended the secondment of Mr J Thomson for the whole of 1974. From Victoria we have had the continued services of Mr G Coleman in our Publishing Unit, where he has helped with layout, cover design, and art work for tests and materials. From the beginning of 1974, also from Victoria, Miss M Lee and Mr M Cropley have helped in our test development work, and from May Mr Ray Smith, formerly with ASEP, has helped us with his skills in graphic arts and visual communication.

Special secondments for the Item Bank project (see p. 30) have included Mr J Gaffney and Mr J Wilmhurst from South Australia for the second half of 1973; Mr G Gredden (for the same period) and Mr R Herschell (for the period July-December 1974) both from Queensland; Mr J Clarke from the Board of Secondary Education in Western Australia for the first term in 1974. Mr Clarke is to return to us in 1975.

For the last term of 1974, South Australia has again seconded two teachers, Mr P Schodde and Mr J Connell.

Lecturing and Other Commitments

A number of members of staff lecture in tertiary institutions.

Dr Reeves has continued his Master's seminar at the University of Melbourne on educational environment and achievement in school, and Dr de Lemos hers on Piaget's contributions to the study of cognitive development.

Mr Rechter and I have responsibility for a half year's BEd course in Measurement at the same university.

Mr Rosier, together with Mr Ross, runs a series of lectures on educational statistics in the BEd course at La Trobe university.

Dr Fitzgerald has continued his work as one of the Commissioners in the Australian Government's Study of Poverty. His particular concern is Education. He is also a member of the Academic Board of the State College of Victoria, and on the Council of the State College of Victoria at Burwood.

Dr Keeves continues as a member of the Council of the Institute of Early Childhood Development in Melbourne.

Mr Rosier has been intimately involved in the program of aid to disadvantaged schools in Victoria, and as a member of the Victorian Education Department's Supplementary Grants Committee for such schools.

Mr Withers chairs a newly formed Committee for the Victorian Universities and Schools Examinations Board to consider the place of English as a second language at the Higher School Certificate level in Victoria.

Mr Foyster is a member of another newly formed committee of the Victoria Institute of Colleges engaged in a study of the level in mathematics of students entering those Colleges.

Mrs Rowe meets regularly with members of the Victorian Education Department's Committee on entry to school and the detection of children 'at risk', and lectures on child development at the Institute for Early Childhood Development.

Mr Maguire is a member of the Australian Book Publishers Educational Promotion Committee, and Mr McIlroy represents ACER in the Booksellers Association.

Higher Degree Studies

As reported in the printed version of last year's report, Dr Fitzgerald's study of 'Factors in Change in Education: a Perspective on the Seventies from the Forties', was accepted by the examiners and he was advised in November 1973 that he had been awarded the PhD by La Trobe University.

A number of staff members are enrolled for higher degrees in the three Melbourne universities:

- Mr Rosier for a PhD at La Trobe University, with an approved thesis dealing with aspects of later choices of occupations and education of those 14 year olds tested originally in the IEA study of 1970;
- At La Trobe also, three members are enrolled for MEd by thesis
Mr P Thomson, whose topic is 'The Swinburne Community School: A Case Study';

Mr Bell, with a topic 'Attitudes towards subjects, by secondary school students'; and

Mr Kings, whose topic is 'The Evaluation of Bilingual Teaching Materials';

- At Melbourne, Mr Ross's thesis is on 'A Study of Sampling Errors in Survey Research'; and

Mrs Segall's on 'School Students' Knowledge of Job Opportunities and Career Patterns';

Miss Grant's proposal for an MEd has also been accepted by the University of Melbourne this year and she proposes to study the response to literature by students at the upper level of secondary school.

Others are completing course work for BEd degrees at Melbourne and Monash, or preliminary studies for a Master's degree.

Increasingly, work done as part of normal ACER projects is being accepted as a basis for higher degree studies, but naturally with a stress on the individual's own contribution, and with an expectation of a good deal of private work being done usually but not always on aspects not a major part of ACER's interest in the project.

Conferences and Seminars

There have been a number of important special conferences and seminars attended by members of staff, apart from the regular meetings of professional associations such as the ACE, the APS, the AARE, and the ISME.

Professor B Wright of the University of Chicago ran a seminar on item analysis techniques at the University of Melbourne in early July 1974. Mr J Thomson and Miss Wines represented ACER for the two weeks of the seminar, and other members of staff were able to join in for limited periods.

Dr Keeves, Mr J Thomson and Mr Foyster participated in a seminar in Canberra organized by the Australian Academy of Science, on Mathematics needed for particular Social Sciences; Dr Keeves and Mr Rosier at a two day conference organized by the Curriculum Development Centre; Dr Keeves and Mrs Segall at a week long seminar on the report 'Learning to Be' arranged by the Australian National Commission for UNESCO.

Mr Bell and Mrs Rowe have attended respectively meetings of the Guidance Officers and Special Education staffs in New South Wales, and Mrs Rowe, by invitation, similar meetings in Queensland.

Mr Rechter, Mr P Thomson, and Dr Keeves shared in the role of consultants and leadspeakers at conferences of the South Australian High School Headmasters' Association.

Dr de Lemos has attended the annual conference in Canberra of

those interested in studies in cognitive development, and in Brisbane the national conference on pre-school education for the isolated child.

I refer elsewhere to the IEA Harvard Conference in November 1973 and to the IEA conference at St Andrews in late September 1974, where Dr Keeves in the first case and I in the second represented the ACER, and to the regional conferences on English as a Second (or Foreign) Language in Singapore that Miss Tebble attended.

Overseas Travel

Apart from the IEA meetings which I have reported above, there was an international conference convened jointly by Harvard University and IEA at Harvard in mid-November of 1973, to consider many of the results of the IEA's international studies. Dr Keeves attended by invitation as a joint author of the report on achievement in science, and represented ACER at the meeting of the Council of IEA held during the conference. It was a stimulating meeting from which a number of developments and discussions of methodology have flowed.

Mr Renehan spent his study leave from November 1973 to June 1974 in England, pursuing his interests in the development of skills in using language. He worked as a member of the team led by Nancy Martin working on the Schools Council project *Writing Across the Curriculum*, taking part in workshops and assisting in the preparation of 'school packs' based on the writing of children from associated schools. He also took part in a conference of nursery school teachers engaged in the Schools Council project *The Language of Pre-school Children* (director, Dr Joan Tough) and visited schools and language centres in the Inner London Education Area and the London Borough of Haringay, concerned with the teaching of English to immigrant children.

Mrs Bradshaw spent her leave from March to October 1974 in UK and USA looking into the provision of tests and other services by bodies such as NFER and Psychological Corporation, and in finding out more about a number of developments (such as WISC-R and the British Intelligence Scale) which have concerned us or will concern us in the near future.

Miss Grant, during recreation leave taken in England early in 1974, followed up interests in the language development of secondary school children and in their response to reading.

Miss Tebble, one of the staff of the Migrant Education Testing Project, attended conferences in July at the Regional English Language Centre in Singapore, on recent developments in the teaching of English as a second and as a foreign language, and on reading; the latter having a particular emphasis, for her, on the reading of English by non-English speaking children.

Dr Clark is taking his study leave from June to January, on a fellowship to the University of Auckland. He hopes to complete, or nearly complete, his current studies in reading and listening skills.

Mr Foyster spent a week in New Zealand, at the invitation of the New Zealand Department of Education, for discussions on Item Banks and for participation in an item writing workshop. His visit has already led to a fruitful exchange of materials.

Staff Superannuation

Like many other superannuation schemes, the benefits of the ACER's scheme are eroded by a decline in the value of the dollar. Supplementary benefits have been provided in some tertiary institutions faced with the same problem.

The Australian Mutual Provident Society has been asked to provide information about the costs and benefits of a scheme not based, as the present one is, on endowment assurance policies. An approach has also been made to the Australian Government to see whether ACER staff would be eligible to join the proposed new Commonwealth Superannuation Scheme.

Visitors

We have been pleased to welcome Mr Neil Reid and to have the benefit of his experience, as head of the test unit of the New Zealand Council for Educational Research, from July to September. Apart from some six to eight weeks stationed at ACER, Mr Reid will be visiting some of the other states to investigate any activities in the assessment of creative thinking.

We have had a number of distinguished visitors calling to discuss our work and organization. We have usually been able to persuade them to speak to staff as a whole about their own special interests. Amongst others, I would like particularly to mention the benefit we received from visits from Dr Julian Stanley, Professors John Nisbet and Ben Wright, Dr E Gass, Mr Tom McMullen, Dr Richard Whitfield, and in the last month Mr H G Macintosh and Professor Sixten Marklund.

BUILDINGS AND ACCOMMODATION

(J M Drummond, C Noble, G Johnson)

In addition to the accommodation in the main Frederick Street premises, staff are housed in rented offices on the first floor at 672 Glenferrie Road and in the cottage owned by ACER, No. 20 Wakefield

Street. The Test Development division has occupied offices at 672 Glenferrie Road for a number of years, the remaining area on the first floor at that address being occupied by the Flight Training Centre. Owing to the need for more accommodation, arising from the recruitment of additional staff for certain grant-aided projects, arrangements were made for the transfer to ACER of the Flight Training Centre lease. In this way, ACER came into possession of the whole of the first floor at 672 Glenferrie Road and now has adequate, if not entirely satisfactory, accommodation for the whole of the staff.

Although the accommodation available is now adequate, it would still be desirable to expand the main Frederick Street premises over the whole of the site, to bring all units back under the one roof, in accordance with the plans outlined in last year's Report. The acquisition in 1973 of No. 3 Frederick Street, planned to provide car parking space in conjunction with the proposed expansion of the Frederick Street offices, proved of no benefit in view of the Hawthorn City Council's wish to retain the cottage and surrounding area as a 'residential' zone. The City Council and others opposed a proposal made by the Board of Works for re-zoning to 'Proposed Public Purposes (Technical School)'. The result of the appeal is not yet known. Whatever the result, it was clear that it could not be used by ACER for offices, storage, or car parking. Swinburne College of Technology, who have development plans for the area, have agreed to purchase the property from ACER.

FINANCE

(Accountant—P Staurenghi)

It has been a worrying year financially. The full effect of the increases in academic salaries made late in the 1972-73 financial year was added to by the general increases throughout the year in non-academic salaries, by the National Wage Case, and by steady rises in the cost of equipment and services of all kinds.

Late in 1973 we were warned of the probable end of the Commonwealth Senior Secondary Scholarship Examination. The decision that the last examination would be that for 1973 was conveyed to us early in 1974, at about the same time as advice that the Australian Government would not be funding further development work on 'experimental' tests designed for use at the end of secondary education to assist in the transition to tertiary education. The latter decision was not unexpected. It has seemed to us for several years that the tests we were developing were not part of an experiment so much as a part of a service that the various centres using them could reasonably be expected to pay for. We had, however, although certain that the CSSSE was not serving its stated purposes and should not continue, expected because

of the letter of agreement on our files from the Australian Government, that there would be an examination in 1974. The Australian Government paid us in the second half of the financial year for the work already done on the 1974 test, but we had to face the financial year 1974-75 without the expected income in that year for the preparation of the examination, and without any of the income for the considerable services for the examination which had been an ACER responsibility, and for which we had had to provide both professional and clerical staff: the marking of essays; the processing of the marks from five states, from the four examination papers and the schools' assessments; and the preparation of order of merit lists. Our major adjustment has obviously been to reduce staff. This process began late in 1973. A number of temporary appointments were not renewed, some staff members were placed in newly arranged projects, staff leaving were not replaced, and help in new employment was given to several members of staff for whom there was no longer suitable work.

The combined effect of the adjustments: the payment referred to; the increase in annual grants from governments from \$140,000 to \$267,000; increased payments to match increase in salaries from bodies such as AACRDE from which we had grants for particular projects; and a less steep increase in costs in our sales and distribution activities than we expected, which gave us a larger trading balance; gave us a surplus of \$26,740 for 1973-74, after making provision for possible retrospective salary increases (\$10,000), for a higher provision for long service and study leave (\$10,000, required because of higher salaries), and for a transfer to building reserve (\$20,000).

Special Grants and Contracts

During the financial year special grants, and contracts for special studies totalled \$176,753. The principal ones were for:

- analysis of the relation between home environment and school achievement
- research into Commonwealth Secondary Scholarships
- development of science and mathematics tests for secondary schools
- studying the achievement of aboriginal children in Victorian primary and secondary schools
- development of an advanced test of musical studies
- analysis of the achievements in science of the specialist science students in the IEA Population IV group
- social science curriculum evaluation
- a sociological study of school and community
- studies of poverty and the adolescent
- psychometric properties of the Australian Scholastic Aptitude Test

- improving the validity of the Stamp Behaviour Study Technique
- materials development for use in fostering the care, development and education of children in early infancy
- studies of the role of comprehension in listening
- evaluation of in-service education in Victoria
- developing tests and other instruments for use by teachers of non-English speaking migrant children
- developing check lists for use with children on first entry to school.

Service Contracts

Test development and services (including the processing of test results) continued under contracts and other agreements relating to the Commonwealth Senior Secondary Scholarship Examination of 1973, the Australian Scholastic Aptitude Test 1974, the Co-operative Scholarship Testing Program, and a number of smaller services. In total they contributed \$587,590 to general funds, but much of it was an immediate outgoing—e.g. for the servicing of the CSSSE.

General

The total income from all sources in 1973-74 was \$1,754,074. After meeting all expenses and providing necessary reserves for such items as long service and study leave, future building, and possible retrospective salary and wage increases, we finished the year as indicated earlier with a surplus of \$26,740, largely because we effected the staff reductions already referred to. This has meant that over the last nine months not only the small number of the more senior officers but many other members of staff, in all the range of tasks that ACER has, have carried very heavy responsibilities and an extra burden of work often involving explicit or implicit deadlines. I am indebted to them for their acceptance of these, and for their commitment to the work they are engaged in.

Early in 1974 a case was put to the Australian Education Council for an increase in the annual grant (at then dollar values) from \$267,000 to \$536,000 over two years. This would have provided for a core staff of twenty-nine (in the 1971 submission this had been twenty-six). The AEC did not accept the case, but agreed:

- to recommend to their respective Treasuries that in 1974-75 the total grant be raised to \$320,000;
- to recommend adjustments as required to take account of variations in academic salaries;
- to consider without entering into a firm commitment, increases

based on present costs to \$365,000 in 1975-76
\$420,000 in 1976-77
\$470,000 in 1977-78

Since then, there has been a national wage case determination, and we have requested that the \$320,000 be increased to \$330,000. Complete agreement has not yet been reached on this. We have also requested that the grants be adjusted to take account of nationwide rises occurring during a financial year in academic salaries, the salaries of supporting staff, and other costs. No finality has yet been reached on the matter of adjustments.

We have budgeted for \$330,000 in Annual Grants in 1974-75, and in our estimates assumed that any increases in the professional salaries of staff funded from these grants will be met by increases in the annual grants. Despite the surplus for 1972-73 (\$34,942) and 1973-74 (\$26,740) carried into 1974-75, we have budgeted for a deficit of \$25,000 in 1974-75 even after allowing for a continuation of buoyant trading and lower expenses. Budgeting in the present period of uncertainty about salaries, wages and other costs seems at times a constant exercise in unreal figures, but is doubtless necessary.

ACER Staff

DIRECTOR

(as at 31 October, 1974)

W C Radford, MBE, MA, MEd, PhD, LLD (Hon), FACE

ASSOCIATE DIRECTORS

Measurement, Advisory and Publishing

M L Clark, BA, BEd (Hons), PhD, MAPsS, MACE, AAIM

Research and Curriculum

J P Keeves, BSc, DipEd, MEd, PhD, fil dr (Stockholm), MACE

SENIOR EXECUTIVE OFFICER

J M Drummond, FCA

GENERAL RESEARCH AND CURRICULUM

(Mrs) M M de Lemos, MSc, PhD

R T Fitzgerald, MA, DipEd, PhD, MACE

M J Rosier, BSc, MEd

(Mrs) M Ayres, BA, DipEd, STDip (part-time)

P Di Leo, BA

(Miss) F Headlam, BA, DipLib

(Mrs) P Larsen, BA, TPTC, TITC (part-time)

(Mrs) J K Matthews, BA, DipEd

D W Pettit, MA, DipEd

(Miss) A Read, BSc, DipEd (from 24.1.1974)

K N Ross, BSc, BEd

(Mrs) P F Segall, BA, DipEd

C Slee, BA (Hons), DipComSc

¹ J Thomson, BSc, MEd

A Wright, BA, DipEd, LTh, MACE

TEST RESEARCH AND DEVELOPMENT

P Thomson, BSc

(Miss) J Baldwin

(Mrs) M Batten, BA, BEd (part-time) (from 17.9.1973)

³ J Connell, BSc, DipT (from 9.9.1974)

² M Crepley, BSc, TSTC (from 4.2.1974)

J M Foyster, BSc (Hons), TSTC

(Miss) A Grant, BA, DipEd

(Mrs) B Hay, BA (Hons) (part-time)

¹ Seconded from Education Department of Western Australia

² Seconded from Education Department of Victoria

³ Seconded from Education Department of South Australia

- ⁴ R Herschell, BA (from 10.7.1974)
 C B Kings, BSc
 (Mrs) J Knight, BA, BEd, DipEd
 (Miss) M Lee, BA BSc, TTC (from 4.2.1974)
 K Piper BA (Hons), DipEd
 (Mrs) H A J Rowe, BA (Hons)
 (Miss) R Wines, BSc, DipEd (from 14.1.1974)
³ P Schodde, BSc, DipT (from 9.9.1974)
 G P Withers, BA, ACCT
² (Mrs) L M O'Dea, BA (Hons), DipEd, MACE (from 4.2.1974)
 (Mrs) F B Cigler, DipTESL, MLing (from 25.1.1974)
 (Mrs) R I Dabke, Staatsexamen, PhD (from 14.1.1974)
² (Miss) H Tebble BA (Hons), DipAppLing, TPTC (from 4.2.1974)
² (Miss) E W Vine, BA, DipEd (from 21.1.1974)

TESTING PROGRAMS AND SERVICES

- W T Renehan, BA, BEd, MAPsS
 (Miss) B Johnson, BA, DipEd
 (Miss) E Watson, BA
 (Miss) J E Prior

ADVISORY SERVICES

Educational

- P Jeffery, BA, TPTC, MACE
 (Mrs) N McBean, BA, DipEd

Psychological

- (Mrs) D M Bradshaw, BA, DipEd, MAPsS
 (Mrs) J C Jenkinson, BA, MAPsS (part-time)

Test Library and Reference Materials

- (Mrs) P Burns (part-time)

LIBRARY

- (Miss) M P Carrick, BA, ALAA (from 14.1.1974)
 (Mrs) B Barclay
 (Mrs) M Findlay, ALAA
 (Mrs) B J Segar (part-time) (from 1.7.1974)
 (Mrs) D Whithear, BA, DipLib

PUBLISHING

- D Maguire, HNC
 (Mrs) A Kumm (22.10.1973)

² Seconded from Education Department of Victoria

³ Seconded from Education Department of South Australia

⁴ Seconded from Education Department of Queensland

² G A Coleman, DipAD

² R F Smith, DipAdvtArt, TTCMA (from 29.4.1974)

(Mrs) M A Taylor

ACCOUNTANCY

(Miss) P Staurengi, BA, BCom

(Mrs) P L Arnold (part-time)

(Mrs) M Crisp

(Mrs) T Wilson

ADMINISTRATION SERVICES

C R Noble

G Johnson

(Mrs) M Palmer

SALES AND DISTRIBUTION

E P McIlroy

(Mrs) M E Clarke

S Dymond

(Mrs) M Engellenner (part-time)

B Fulton

P Gale

(Mrs) J Harding

(Mrs) J C Meadows (from 22.4.1974)

(Mrs) I Miller

R M Muir (from 15.11.1973)

(Mrs) J Russell

S Shepherdly (from 24.9.1973)

J Wilson

SECRETARY TO DIRECTOR

(Miss) K A Saunders

SECRETARIES TO ASSOCIATE DIRECTORS

(Mrs) M Balloch

(Mrs) G Dobell

GENERAL SECRETARIAL AND OFFICE SERVICES

(Mrs) J D Turnbull

(Miss) J Abbott

(Mrs) Y Allen (part-time)

(Mrs) B Anderson

(Mrs) J Clark (from 25.2.1974)

(Mrs) O Cowan (part-time)

² Seconded from Education Department of Victoria

(Miss) R Dods
(Mrs) K Goodluck
(Miss) C Graafmans
(Mrs) J V King (from 11.2.1974) (part-time)
(Mrs) E Krizos
(Mrs) M R Longman (from 3.12.1973)
(Mrs) D Parry
(Mrs) M Pawsey (from 24.6.1974) (part-time)
(Mrs) J Ramus (from 13.9.1973)
(Mrs) A Steverson (part-time)
(Mrs) M D Webb (part-time)
(Mrs) I Wiseman (part-time)

CLERICAL AND TECHNICAL ASSISTANTS

(Mrs) C Bayley
(Mrs) E D Cooper (part-time)
(Mrs) M Corfe
(Mrs) S Haynes (part-time)
(Mrs) P Lansdell
(Mrs) M Peel

Contributors to Council Funds

The Council acknowledges, with thanks, the following contributions received during the financial year ending 30th June, 1974:

Australian Governments: General Grants for Research

Australia	\$133,500
New South Wales	50,904
Victoria	36,846
Queensland	19,592
South Australia	11,933
Western Australia	9,612
Tasmania	4,631
	<hr/>
	\$267,018

Special Grants for Research Projects:

Australian Advisory Committee on Research and Development in Education	\$37,640
Department of Labour and Immigration	65,000
National Committee on Social Science Teaching	18,394
Department of Social Security	25,446
Advisory Committee on Child Care Research	16,500
Ministry for Aboriginal Affairs—Victoria	12,346
Victorian In-service Education Committee	7,500

State Institutes for Educational Research

Nature and Function

The state Institutes are autonomous bodies, each nominating one representative to the governing body of the Australian Council for Educational Research, and co-operating closely with it when occasion requires. In 1956, at a meeting held in Melbourne, these representatives formulated the following statement of the nature and functions of an Institute. In general, as the reports printed later will show, they carry out the functions in different ways and with different emphases.

'The object of the Institute is to act as a learned body devoted to the promotion of study and research in education, emphasizing the scientific study of educational problems, by means of the following activities:

A Disseminating

(i) research, either

(a) the results of specific pieces of research done by members; or

(b) reports on the collection of research information;

(ii) opinion and accounts of practice in education.

B Participating in

(i) the discussion, planning and criticism of research projects,

(ii) the active carrying out of research projects.

C Establishing areas of contact with other educational groups.'

Membership on Council of ACER

The term of office of an Institute representative on the Council of the ACER is four years, and the dates of appointment are arranged to provide a continuity of membership of the Council.

NEW SOUTH WALES

New South Wales Institute

Office Bearers:

Patrons: Professor C R McRae, Sir Harold Wyndham

President: Mr D A Trathen

Vice-Presidents: Dr R W Rawlinson, Dr J L Sheppard

Hon. Secretary: Mr W R Johnston

Hon. Treasurer: Mr L Whiteman

Librarian/Research Officer: Mr D Thew

Assistant Editor, Australian Journal of Education: Dr R W Rawlinson

Delegate to ACER: Professor J A Keats

Alternative Delegate: Associate Professor R Debus

Additional Committee Members: Mr J Shellard (Editor of Institute Bulletin), Associate Professor R Debus, Mr G Hermann, Dr K E Sinclair, Professor D Spearritt, Dr D Thew

Meetings

March 1974. Professor Boyd R McCandless: 'Project Success Environment'.

May 1974. Mr P J Doherty, Mr W Rose, Dr B Thorley, and panellists: 'Change in Special Education'.

May 1974. Dr D T Wright: 'Change in Post-secondary Education'.

June 1974. Dr J L Sheppard: 'Change in Research on Child Development'.

July 1974. Professor Glen Evans: 'Curriculum Development and the Teacher'.

July 1974. Dr J O Miller: 'Change in Education for the Allied Health Professions'.

August 1974. Miss J J Fry: 'Pre-school Education—to be or not to be. . .'

October 1974. Mr N Baker, Mr R D Phillips, Professor J B Biggs as panellists: 'Process Approaches to Education'.

November 1974. Annual General Meeting. Associate Professor Cliff Turney and colleagues: 'Innovation in Teacher Education: Teaching Teaching'.

Newcastle Branch

Office Bearers:

Chairman: Mr J Bennett

Vice-Chairmen: Associate Professor J Staines, Mr G H Duncan, Mr E Crago

Hon. Secretary & Librarian/Research Officer: Mr R R Milne

Hon. Treasurer: Mr L Pennington

Committee Members: Mr C G Elliott, Dr J Miles, Mr L M Koder, Mr R S Rowe

Meetings

February 1974. Mr Bruce Callaghan: 'The Social Welfare Program in Newcastle'.

March 1974. Dr T Vinson: 'Sociological Survey of Socio-economic Effects upon Crime Incidents in Sydney/Newcastle'.

April 1974. Mr J Miles: 'The Influences of Socio-economic Status upon School Attainment'.

May 1974. Professor J Biggs: 'Educology—A New Discipline'.

June 1974. Dr Mary Nixon: 'The Place of Education Psychology'.

July 1974. Professor O L Zangwill: 'Specific Learning Difficulties in School Children'.

August 1974. Chairman's Address—Mr J Bennett: 'Possible Relationships between Teachers' College and Faculty of Arts in Newcastle'.

Membership

Fifteen new members have so far joined the Institute this year; seven of these through the Newcastle Branch. Total membership of the Institute in October 1974 was 193, of which number fifty were members of the Newcastle Branch.

VICTORIA

Office Bearers:

President: Dr L W Shears

Vice-Presidents: Mr G Bradshaw, Dr G Allen

Hon. Secretary: Mr A J Nattrass

Hon. Assistant Secretary: Mr K Hall

Hon. Treasurer: Mr F Hindley

Executive Members: Mr G J Whitehead, Professor R Selleck, Miss J Russell, Miss I Palmer, Dr R G Rowlands, Mr H Hobbs, Miss A Ridsdale.

Meetings

March 1974. Mrs N Grieve and Ms D Heath: 'Personality and Schooling in a Sexist Society'.

June 1974. John Smythe Memorial Lecture by Professor B Crittenden: 'Developmental Theory and Moral Education'.

July 1974. Twenty-first Frank Tate Memorial Lecture by Professor John D Nisbet: 'Innovation in Education—Bandwagon or Hearse?'

October 1974. Primary Education Today. Panel of speakers including Mr R Conway, Professor Downing: 'Media Education'.

November 1974. The Eleventh Theodore Fink Memorial Seminar. Professor C M H Clark, Professor of Australian History at Australian National University: 'Not Even the Lord's Prayer'.

G. S. Browne Prize

Educational Practice Prize: 'The Assessment of a General Studies Program at the Seymour High School' by Mr D Lugg, Principal, Seymour High School.

VIER Bulletin

Bulletin No. 32 was published in June 1974, and Bulletin No. 33 was published in November 1974.

Financial Membership

In September 1974 there were 490 members.

SOUTH AUSTRALIA

Office Bearers:

Patron: Mr A W Jones (Director-General of Education)

President: Mr R J Gilchrist

Vice-Presidents: Mr K L Berndt, Mr R S Coggins

Hon. Secretary: Mr W R Hosking

Hon. Treasurer: Mr D Dent

Exec. Committee: Miss B Davis, Mr L Kiek, Miss B Tabor, Mr N Wilson

Hon. Auditor: Mr N W Edwards

Officially the Institute is in the state of 'suspended animation' as explained in last year's report, and no general meetings of members have been called.

Early this year the Committee met at the home of the President for the purpose of discussion on possible activities for the year, and for the Committee to meet and talk with the Patron (Mr A W Jones, Director-General of Education) and the newly co-opted member of ACER Council (Dr G A Ramsay, Director Torrens College of Advanced Education).

A decision was taken to continue, with the same office-bearers and Institute Representative on Council, for the ensuing year.

It is hoped a revival of interest may take place based largely on the developing research within the several Colleges of Advanced Education.

QUEENSLAND

Office Bearers:

Patron: Honourable Sir Alan Fletcher, Minister for Education

President: Mr N D Alford

Vice-Presidents: Mr W L Hamilton, Mr A W Jackson, Dr B H Watts

Hon. Secretary: Mr R. S. Warry

Hon. Treasurer: Mr B Cameron

Executive: Mr N Anderson, Miss N Beer, Sister Joan Mary, Mr A J Nimmo, Miss D Richmond, Mr I Smith, Mr P K Sydney

Representative to ACER: Dr S A Rayner

Assistant Editor, Australian Journal of Education: Dr B McGaw

Hon. Auditor: Mr C E Anstey

Meetings

February 1974. Annual General Meeting. Mr D D R Long. 'Innovation as a Comparative Study—Some Perspectives from Russia and Great Britain'.

March 1974. Third J A Robinson Memorial Lecture. Professor G T Evans. 'Action Research and the Classroom Teacher'.

April 1974. Mr K Piper: 'Evaluation in the Social Sciences'.

June 1974. Mr P Jeffrey. 'Materials Evaluation and the Classroom Teacher.'

July 1974. Forum: 'Values, Society and the School's Responsibility'. Archbishop F R Arnott, Mr R Forward and Mrs D Sargeant.

September 1974. Dr J P Keeves. 'The Performance Cycle: Motivation and Attention as Mediating Variables in School Performance'.

October 1974. 1974 Public Lecture Series. Professor J R Settlage. 'Environmental Studies—Going is the Reward!'.

1974 Public Lecture Series

The 1974 Public Lecture Series was held on 30 and 31 October at the Kelvin Grove College of Teacher Education. The guest lecturer was Professor John Settlage, Professor of Science Education at the North-east Missouri State University. Professor Settlage spoke to the theme 'Environmental Studies—Going is the Reward!' and presented an 'extended' view of environmental studies.

QIER Research Project

This research project, commenced in 1973 in conjunction with Dr N W M Hart of the Mount Gravatt Teachers College, has now been completed. Dr Hart has prepared a report of the analysis of the basic reading series investigated, and it is planned to publish a full report of the project and its outcomes in the January 1975 issue of the *QIER Journal*.

Membership

At 1 October 1974 there were 210 financial members.

WESTERN AUSTRALIA

Office Bearers:

Patron: Mr J Barton

President: Mr R G Peter

Vice-President: Mr J Liddelow

Hon. Secretary/Treasurer: Mr N Tuckwell

Hon. Auditor: Mr C M Cook

Committee Members: Dr J Braysich, Mr C Cook, Dr A Stewart

Meetings

October 1973: Associate Professor Blomfield of the Faculty of Education of the University of W.A. explained and demonstrated some of the work of the Physical Education section of the faculty.

November 1973. Dr George Amerson of Churchlands Teachers College: 'The effective use of contracts to motivate children'.

March 1974. Annual General Meeting. Professor Rosemary Hake of

Chicago State University: 'Current Research in Language Performance. How can evaluations of performance offer teachers strategies for teaching?'.
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April 1974. Dr N Hoffman, Superintendent of Mathematics in the Western Australian Education Department: 'Curriculum Changes and the Educational Researcher of the Future'.

June 1974. Dr C Marsh of Graylands Teachers College: 'Research Findings in the Social Sciences with Implications for Teacher Education'.

July 1974. The Director of Special Services (Dr A Stewart), the Superintendent of Research (Mr M Angus) and the Superintendent of Curriculum (Mr B Wright) formed a Symposium to discuss: 'Current Research Programs of the Education Department of W.A. and their Implications for Curriculum Development'.

August 1974. Dr W D Neal, Dean of the School of Teacher Education at the Western Australian Institute of Technology: 'Proposals for Teacher Education at W.A.I.T.'.

September 1974. Dr D Andrich of the Education Faculty of the University of W.A.: 'Planned Changes in the Empirical Research Methods, Measurement and Statistics Programs of the Faculty of Education, University of Western Australia'.

Prizes

The R G Cameron Prize for Educational Research, sponsored by the WAIER was awarded for 1973 to Mr W N Bardsley. The WAIER Prizes for the best students in Education and Psychology for 1973, in each of the four colleges concerned, were awarded to: Miss H Luckett of Mount Lawley Teachers College; Mrs G. Stewart of Claremont Teachers College; Mrs J Booth of Secondary Teachers College; Miss J Gildersleeve of Graylands Teachers College.

Membership

The membership in October 1974 was 103.

TASMANIA

Office Bearers

President: Mr N H Campbell

Vice-President: Mr L D Blazely

Hon. Secretary: Mr N L Behrens

Hon. Treasurer: Mr R S Cooper

Representative on ACER: Mr N L Behrens

Executive Members: Mr H L Dodson, Mr B Hortle, Mr K G Milton

Hon. Auditor: Mr D Brown

Meetings

Mr Murray Yaxley, a former Tasmanian headmaster, spoke from his

background in the United Nations organization on 'Practical Limitations to Improving Education in a Developing Country'.

Dr John Dennison, from the University of British Columbia, addressed the Institute on 'The Idea of the Community College'. The meeting formed part of Professor Dennison's program of discussions about this topic and the work of the Commonwealth Commission of Enquiry into Poverty.

Executive Meetings

The Executive has met to consider the activities of the Institute in 1973-74.

G V Brooks Prize

This prize is awarded to the outstanding final-year student at the Northern Division of the Tasmanian College of Advanced Education. The winner of the prize in 1973 was Miss Tineke Jager.

General

The activities of the Tasmanian Institute in 1973-74 has been very limited but an expanded program for the Institute is to be drawn up for the forthcoming year.